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ABSTRACT

The object of this project was to develop a culture-fair, nonverbal individual readiness test for disadvantaged preschool children. Two equivalent forms of the test were developed so that teachers could administer the first form to identify needs early in a preschool program, set up specific remedial programs for individuals, and use the second form of the test to assess the efficiency of the program and individual progress. A total of 6662 children in 364 Head Start and Day Care Centers were tested to refine and standardize Form A of the Test. Analysis and norming of Form B was carried on in 301 centers with 5271 children participating. Item analyses of both forms of the test were made. The data indicate that both forms of the test are sufficiently valid and reliable for use in an evaluation program for disadvantaged preschool children. Two-thirds of this report gives supplementary and appendix materials which include statistical tables, data of participants in the research project and facsimilies of Form A and Form B of the test developed. (MS)

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FINAL REPORT
PROJECT NO. 9-F-017
GRANT NO. OEG-6-9-009017-0059 (010)

DEVELOPMENT OF A READINESS TEST FOR DISADVANTAGED PRE-SCHOOL CHILDREN IN THE UNITED STATES

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October 31, 1969

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PREFACE

The major field investigated in this research project was the development of culture-fair, non-verbal (pictures and symbols) individual readiness tests for culturally disadvantaged pre-school children in the nation. Two forms are included with this report; it is recommended that one form be administered early in the school program for pre-school children and the other during the final weeks in order to evaluate their progress. Such readiness tests show promise of improving education particularly for children who have been culturally and economically deprived.

The report is organized in such a way that the two forms of the test may be removed from the Appendixes and disseminated to persons in the United States who are interested in the evaluation of disadvantaged pre-school children. A summary of statistical tables and percentile norms are included on the last page of each of the two forms of the test.

Also included in the appendixes is a list of three hundred sixty-six National Community Action Programs which were involved in the standardization of the tests which were developed and refined during the time of the project. The author is humbly grateful for the many hours of volunteer time given to the project by the hundreds of Head-Start and Day-Care Center Directors, teachers, curriculum coordinators, and others who administered the tests to their children after they had ranked the children in their order of readiness for entrance into public school programs. Without their cooperation, this project could not have been conducted. No research can be conducted without the enthusiastic help and support of many people. The author is grateful not only to the teachers and others in the field who participated in the project but also to the dozens of consultants at Northwest Missouri State College and in the district who encouraged and assisted her in many ways. She is especially grateful to Dr. Robert P. Foster, President, to the Deans, and to the Division and Department Chairmen for releasing her from teaching one class in order to devote the extra time to the project; to Dr. Joseph Dreps, Professor Emeritus and Past-Chairman of the Department of Foreign Languages, for translating the directions for the tests into both French and Spanish to increase the value and usability of the instruments; and to Mr. Robert Sunkel, Chairman of the Art Department, for his help.

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SUMMARY

The major objective of this project was to develop a culture-fair, non-verbal individual readiness test for disadvantaged pre-school children in the United States. Anticipated outcomes included: (1) refined, easily administered tests with adequate directions to insure uniform results with a minimum of time invested by teachers; (2) norms in the form of percentile ranks for rural and urban, full-year and summer, boys and girls of different chronological ages; (3) equivalent forms of the test so that teachers may administer the first form to identify weaknesses early during the program, set up specific remedial programs for individual children based on their needs, then use the second form of the test to assess the efficiency of the program and progress made by each child; and (4) dissemination of results through ERIC.

Five hundred ninety-two invitations to participate in the project were mailed to agencies selected at random from the CAP Pamphlet C/CA-3, Directory-CAP Grantees, Office of Economic Opportunity. Three hundred sixty-four Head Start and Day Care Centers with a total of 6662 children cooperated in refining and standardizing Form A of the test; 208 centers enrolling 3591 children were urban, 156 enrolling 3071 children were rural; 234 centers with an enrollment of 4256 participated during full-year programs, 130 centers with 2406 children participated during summer programs. Three hundred one centers were represented in the analysis and norming of Form B of the test, with a total of 5271 children participating; 166 centers enrolling 2727 children were urban, 135 enrolling 2544 children were rural; 182 centers represented by 3132 children participated in their full-year program; 119 centers enrolling 2139 children participated during summer programs. Every state had at least one sample class of children involved in the project.

Both curricular and empirical or statistical validity were assessed for the instruments. Scores were compared with children's scores on standardized tests and with teachers' appraisal of children's readiness for entrance into public schools. Three methods were used to assess the reliability of the instruments. Percentile norms and various measures of central tendency, variability, and correlation were computed at different stages during the project. Careful item analyses of both Form A and Form B resulted in instruments with proper level of difficulty and positive discriminative value for the 50 multiple-choice items included in each form of the test.

Begun in the rural setting of Northwest Missouri, administration of the instruments in urban and metropolitan centers to children whose ages ranged from under three years to nine years, resulted in proved merit for applicability and possible improved educational practices and instructional materials in the area of pre-school programs for disadvantaged children. The objective of preparing and refining culture-fair instruments to be used in assessment of children's readiness for entrance into public school programs was accomplished.

INTRODUCTION

The problem of evaluating children enrolled in Head Start and Day Care Centers throughout the United States has been complicated by the absence of culture-fair, non-verbal individual readiness tests for assessing their weaknesses as compared with less culturally disadvantaged pre-school children in the United States. At least 25% of America's children are among the 30 million Americans who fall below the poverty line. Many researchers are interested in improving evaluation and education of children from impoverished and culturally and educationally deprived backgrounds. The need for improved educational attainment of disadvantaged children has been confirmed by authorities in the field. Recognition of this need for compensatory education of culturally deprived children provided partial basis for the Elementary and Secondary Education Act of 1965. Through such federal programs, considerable technological improvements have been made available to public schools. Improved approaches for evaluating and instructing the educationally deprived pre-school children are now being developed and tried. Much of the emphasis has been directed at problems existing in urban centers. During the fiscal year, 217,688 children were enrolled in year-round programs under Project Head Start financed by $192,224,663 in Federal funds; during the summer of 1968, 466,201 children were enrolled in such programs at a cost of $91,056,098. Further evidence of the awareness of the Federal Government of the needs of disadvantaged pre-school children is furnished in the recent establishment of the new Office of Childhood Development under the auspices of the Department of Health, Education, and Welfare.

The Research Conference on Education and Cultural Deprivation[1] found that below-grade achievement level for culturally deprived youth has been well documented, that children who consistently fail at school tasks frequently become apathetic or rebellious, that the educational deficit of the deprived child is cumulative, and that schools cannot compensate for the inadequate backgrounds brought to the classroom by children from deprived homes. Among the recommendations which grew out of this conference were provisions of many approaches to introductory learning with each child placed in the approach most appropriate for him, smaller groups for teachers of children during their early formative years (preferably fewer than 20), specialists to aid each teacher, and improved instructional and curricular materials. For culturally disadvantaged children it would be advisable to provide a revised curriculum during the pre-school years to halt the cumulative deficit in learning achievement at later levels and every resource should be available to the teacher at these levels. Naturally, this should include improved evaluation techniques and measurement instruments. Most of the educational research stresses the need for improved educational attainment of disadvantaged youth and children. Young children are normally eager to learn; this is a need of each healthy human being. Learning by disadvantaged children is restricted in part by perception of possibilities deprived from their past experiences; but their learning may be facilitated by bridging the gap between familiar things and the new. This indicates a need for evaluation instruments which will recognize that readiness is in part dependent on prior experience and that differences will always be found among learners in readiness for learning in any given situation. It seems desirable to try to overcome as many such differences as possible which stem from impoverished backgrounds.

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[1] Bloom, Benjamin S., Allison Davis, and Robert Hess, Compensatory Education for Cultural Deprivation, New York: Holt, Rinehart, and Winston, Inc., 1965, pp. 41-51.

Many different definitions may be found for disadvantaged children but the children involved in this project were considered as those being deprived of maximum opportunities for healthy growth and development which are available to other children within the same society.[1] If this deprivation of opportunities is attributed to the accident of a child's having been born to parents who live in poverty, certainly everything possible in this affluent society should be done to make those desirable experiences available to disadvantaged children so that they may also lead competent, satisfying lives in an increasingly urban, industrial, and democratic society.

The most conservative estimate is that approximately 25% of the American children fall below the poverty line. Many researchers have estimated that impoverished children constitute upwards to two-thirds of the pupil enrollment in certain municipalities. A few have found 40%-70% marginal economic children in large city schools. Whatever set of statistics is used, disadvantaged children may be regarded as universal; they are not peculiar to rural America nor to non-white races.[2] They are found among all races and localities, from Harlem to Appalachia, from Indian reservations to the deep South, from ghettos to rural slums; they are the children of the jobless, the unemployable, the under-employed, the migrant workers, and others in this nation who are unable for economic reasons to provide for their children the necessities for comfort, survival, self-respect, and self-esteem which would enable them to participate satisfactorily in this society. Children are considered disadvantaged indeed if they come from a family environment which militates against their capacity and willingness to learn.[3] For purposes of appraisal of these children, it appears that evaluation instruments should be used which give a true indication of a child's capacity to learn in spite of factors which militate against his success in the public school. This would be one way to prevent the early appearance of the "drop-out syndrome" characterized by apathy or rebelliousness. Many of the "marginal economic children" enrolled in large school systems which Deutsch estimated as composing up to 70% of the enrollment[4] might appear in a more favorable light if evaluated with culture-fair instruments.

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[1] Marans, Allen E., and Reginald Lourie, "Hypotheses Regarding the Effects of Child-Rearing Patterns on the Disadvantaged Child," Disadvantaged Child, Vol. 1, Seattle Seguin School, Inc., 1967, p. 21.

[2] Fantini, M.D., and Gerald Weinstein, The Disadvantaged, New York: Harper and Row, 1968, p. 5.

[3] Keach, Everett T., Robert Fulton, and W. E. Gardner, Education and Social Crisis, New York: John Wiley and Sons, Inc., 1967, p. 1.

[4] Deutsch, Martin, "Nursery Education: The Influence of Social Programming on Early Development," The Disadvantaged Child, op.cit.,p.145.

While no attempt has been made to engage in an exhaustive review of relevant literature, a search has been made for pertinent related studies. While serving as a volunteer worker for the Northwest Missouri Community Action Program in the position as District Director of Psychological Services, the writer and seventeen junior and senior students enrolled in courses in Tests and Measurements and Evaluation of Pupil Growth and Development in the Elementary School, made a comprehensive study of pre-school tests currently available from test publishing companies, a survey of the most recent editions of Buros' "Mental Measurements Year Book," a review of over 100 volumes in the Northwest Missouri State College Library and 50 new volumes in the area of Pupil Evaluation owned by college professors who have taught in the field of Tests and Measurements and Statistics, and 15 books available through Project Upward Development dealing with the "Disadvantaged Child," methods of teaching and stimulating him, innovations and issues in teaching him, and teaching strategies which be used with him.

Some of the more promising tests had certain items which might discriminate against the economically disadvantaged child since they contain situations which were never a part of the background of experiences of children whose apperceptive background is very limited. The writer used some of the standardized tests with all of the children enrolled in the seven full-year classes in her district and in the three summer classes and found that some of them stress vocabulary to the exclusion of other items which might not discriminate against the disadvantaged child to such a great degree. All of the tests examined appeared inadequate in a program for psychological services for Head Start Children. Since some of the individual performance tests must be administered by trained personnel and are therefore usually used only for children with deep problems who are referred for psychological study not afforded most of the children enrolled in Head Start and Day Care Centers, it seemed that inexpensive non-verbal tests, with directions which could be easily followed by teachers and directors who are relatively untrained in test-administration-interpretation, should be made available to such workers with disadvantaged children. Some tests do not involve vocabulary but rely on observation of children as they perform certain tasks; these have great value, but many teachers of disadvantaged children do not have sufficient time to devote to such testing experiences. Some tests appear to discriminate more than others against children with impoverished backgrounds.

The writer and her junior and senior psychology students decided to develop several items of an objective nature for use with disadvantaged pre-school children as part of a class project and term report. The first test was duplicated and administered to one class of twenty children in Head Start. Composed of 55 items, it was tried with the entire class and this experience was considered a complete failure; it was then attempted with small groups of three and four children each marking their own copy of the test. This was discovered not to be feasible since the children watched each other and tended to mark the same replies as their peers, right or wrong. Experience with four items involving color plates in the alternatives, which from the beginning needed to be administered to the children one at a time, confirmed what the writer suspected, that any evaluation instrument for pre-school children would be more satisfactory if administered to each individual in isolation from the remainder of the group. This proved to be such a valuable and rewarding experience that four of the students volunteered to accompany the writer to visit the other Head Start classes in this district and try out the items on a broader basis. Further testing of the 107 children enrolled in these classes led the group to an acute awareness of needed improvement in compensatory programs for disadvantaged rural pre-school children.

Careful item analysis of the results of the four sub-tests: Similarities, Differences, Numerical Analogies, and Missing Parts, enabled the group to eliminate items which were too easy, too difficult, ambiguous, or negative in discrimination value. The color plates were also discarded, not because it was felt that they were valueless, but because of difficulties involved in producing enough copies by cutting and pasting particles of construction paper of different colors and sizes uniformly on the plates for use by each of the persons concerned. In further research in this area, it might be possible to reproduce the different colors in some way to insure uniformity, but this was impossible with a liquid duplicator and a mimeograph machine.

It was felt by the early participants in the project that the teachers were doing a good job working with these disadvantaged children but there were few instruments available to help them assess improvements and progress. The semester ended with the recommendation being prepared for presentation to students in the same course during the summer school that they continue with the project by preparing an alternate or equivalent form of the test. A committee of three students volunteered to continue by developing parallel items to compose an alternate form of the test. Thus, one form could be administered early in the year to evaluate the children and the other form could be administered near the end of the program to assess improvement. Other Community Action Program Directors and Head Start Directors in the state heard of this local project and volunteered to try out the test items with their children. The duplicated copies of the tests were replaced by neater mimeographed ones; the latter had definitely improved art work in the items. The mimeographed tests were prepared with the assistance of a student not enrolled in the class but with some skill as an artist. Other students enrolled in summer school became interested in the project and volunteered to have the tests given in their home towns and the writer contacted individuals she knew in other states to secure more participants. Those who cooperated in the early stage of development were so enthusiastic that the project began to receive recognition and the writer was encouraged to apply for a small research grant to continue the test development in a nation-wide vield trial. Empirical validity was tentatively established by computation of coefficients of correlation between scores on the tests and teachers' ratings of children's readiness for entrance into public school programs. The average correlation, using the Rank Coefficient of Correlation Method, between children's scores on the first form of the test and the teachers' rankings of the children was .567 for the original 355 children enrolled in the 26 experimental classes. The second form of the test, later called Form B, was administered to 605 children enrolled in 36 experimental classes in three states; the average correlation between the children's scores and the teachers' ranking of their readiness for public school entrance was .655, the average weighted correlation being .690.

In addition to the benefits of early involvement of college students in this project for the students themselves, the teachers, Head Start Directors, Vista Volunteers, and others who participated in the project, it was felt that a great contribution was made to the children who were tested as they were provided with individual attention on a one-to-one basis which many of them had never before experienced. The attempts made to establish rapport with the children did contribute to their development of a worthwhile, healthy self-concept on the part of the children with whom the college students spent some three hundred fifty-four volunteer hours. Research has further indicated the need for continued emphasis upon similar programs and attention to individual needs throughout elementary school and high school in order to keep poverty-stricken children from dropping out of school and adding to the pool of stagnant welfare recipients in a vicious circle which perpetuates itself. If the circle is to be broken, it must be done during the first few years of a child's life before patterns, habits, and attitudes are more fixed and permanent.

Application for a small research grant to continue with the project described was based on a firm conviction corroborated by early findings that the younger children can be placed in some kind of school program, the better; the longer they remain in a disadvantaged environment without outside help, the more difficult it is to help them overcome the retardation suffered therefrom.

The major objective of this research project was to develop a culture-fair, non-verbal readiness test for rural and urban disadvantaged pre-school children in the United States. Specific objectives included: (1) to prepare easily administered tests with adequate directions and instructions to insure uniform results with a minimum of time invested by teachers; (2) to prepare norms in the form of percentile ranks for rural and urban, full-year and summer, boys and girls of different chronological ages; (3) to prepare equivalent forms of the test so that teachers may administer the first form to identify weaknesses early during the program, set up specific remedial programs for individual children based on their needs, then use the second form of the test to assess the efficiency of the program and progress made by each child; (4) to disseminate results through the Department of Health, Education, and Welfare, to persons and agencies interested in the evaluation of disadvantaged pre-school children (later this objective was changed to include dissemination from ERIC, Educational Resources Information Center); and (5) to make available refined instruments for evaluation which will improve the entire rationale of measurement and evaluation.

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METHODS

As was indicated in the Introduction, this project was begun on a small scale by the writer and a group of students with majors in psychology at Northwest Missouri State College. Students who were interested in disadvantaged children and who needed to fulfill one course requirement, preparing and administering teacher-made test items of an objective nature, chose to work with Head Start children enrolled in the seven classes in the counties of Northwest Missouri where the writer served as volunteer District Director of Psychological Services and had been searching for proper evaluation instruments for these children which would not require the services of especially trained personnel. Preliminary screening observations and brief contacts with the children resulted in the realization that some kind of satisfactory testing program needed to be initiated in addition to the medical examinations and physical tests to assess physiological development, handicaps, and deviations which might be corrected before disadvantaged children are enrolled in public schools. The twenty children in the local Head Start class located on the campus of the College were readily available. In addition to the interested students enrolled in the courses in Tests and Measurements and Evaluation of Pupil Growth and Development in the Elementary School, twenty juniors and seniors enrolled in Child Psychology were also eager to help with the project as needed experience in the field and as part of their term projects which culminated in the writing of case studies of the children who were being tested by the students enrolled in the other two courses.

The first attempt to administer the rough-draft experimental instrument resulted in complete confusion and utter chaos since the initial trial was a group experience. This unsuccessful attempt to develop an instrument for testing groups resulted in abandonment of the idea in favor of small groups of three or four children. It was felt that in this way the test administrator could observe behavior of the children, encourage the hesitant ones to continue, and insure that instructions were being followed. This experiment was also a failure because the children followed the leader; valid results could obviously be obtained only be administering the instrument on an individual basis. During the next two months the test was administered to a total of 107 children in the district. In order to compare the behavior of disadvantaged pre-school children on this preliminary instrument with the behavior of normal middle-class pre-school children, two members of one course administered the test to public school kindergarten children. As was expected, since the children were a bit older than the Head Start children generally and had been exposed to better home environments, their scores were consistently higher than the scores of the Head Start Children. This was one more evidence of the need to bridge the gap between where disadvantaged children are and where public school teachers will expect them to be when they are enrolled in school.

The spring semester closed at the College with a recommendation from the students involved in the project to students who would enroll in similar classes for the summer term to continue the project by preparing equivalent items for an alternate form of the test, to the teacher to apply for a small research grant to give the instruments a national field-trial, and to the teacher to broaden the base of the "small" research by inviting some other districts to administer the instruments and allow her to analyze results in comparison with those of the children in Northwest Missouri. All of these recommendations were successfully followed. The project begun in the predominantly low economic rural setting of Northwest Missouri soon spread to other states and regions, to urban centers and municipalities. The initial forms of the tests proved completely satisfactory, although results were not identical in other areas. Several items were changed to avoid decoys or alternatives which appeared to have culture-bias for children who had never seen a farm nor gone for a drive through the country. Comments made by children in test situations were carefully analyzed to ascertain which items could be considered ambiguous.

Form A was administered in mimeographed form to children enrolled in 28 Head Start and Title I Centers in the United States; 26 of the teachers had ranked the children in their order of readiness for entrance into public school programs. Coefficients of correlation and various measures of dispersion and central tendency were calculated at different stages during this early period of development. Four hundred fifty-five children were involved at this time; only 355 could be used in development of statistical tables, either because their ages or birthdates were not given, returns arrived too late, or the teacher failed to rank the children prior to test administration. Centers used in preliminary testing represented different size enrollments, types of systems, socio-economic levels, rural and urban situations, as well as children of different races. Based on these results and a careful item analysis of all returns, Form A was given to the printers for preparation for mailing to random-selected centers where disadvantaged pre-school children were being taught. The writer depended upon the cooperation and willingness of teachers and program directors to administer the test to their disadvantaged children and return the results for analysis and development of norms. As soon as the printed test was ready, a copy of the instrument itself and the answer sheets to be used was mailed for Office of Education Review of Data-Gathering Instruments. It was explained that the information requested for each child at the top of the answer sheet would be used only for development of norms based on age, population, and if deemed expedient, sex and race. The intention was to base norms solely on children's ages unless appreciable differences were found between responses of boys and girls and between different races or between children enrolled in urban and those enrolled in rural programs. While waiting for approval of the data-gathering instruments, the writer contacted national and regional officers in Project Head Start and in Community Action Programs for permission to administer the instruments in selected classes; then agencies were selected at random from the Directory of Community Action Program Grantees who would be invited to cooperate in the nation-wide research project designed to develop culture-fair readiness tests for disadvantaged pre-school children. Permission and assurance of whole-hearted cooperation came from most persons contacted; several regional officers furnished more up-to-date lists of Head Start Centers which could be used to check accuracy of the material in the Directory. Two Regional Head Start Chiefs wrote letters to all of the CAP Directors chosen for participation in the project, urging their prompt cooperation in administering the tests and returning the answer sheets to the researcher.

Six hundred agencies had been selected and Form A was mailed to about half of them requesting their help and explaining that Form B would be mailed to them within a few weeks. Meanwhile, Form B of the test in mimeographed form had been administered to 618 children in 36 Head Start and Title I Centers, the answer sheets subjected to the same careful item analysis, changes made, items eliminated or improved, and remaining items rearranged in order of increasing difficulty. As soon as it was printed, Form B was enclosed in the same packet with Form A materials to be mailed to the remaining half of the agencies selected at random to ask for cooperation in the project. Eight of the original 600 copies were returned unused because the grantees chosen had no Head Start Program. Of the original 592 packets received by eligible grantees, three hundred sixty-four (364) fully executed Form A packets were returned for analysis; only 301 fully executed Form B packets were returned. Several participants reported receiving Form B too late in the school year for administration to the children who had been given Form A. In some instances, the program directors agreed to cooperate again with both forms of the test during their summer program, using a different class of children. Permission was granted. Some of the participants made copies of the tests and answer sheets in order to administer them to all of their children; in these cases, one class was chosen to be included in the sample for norming purposes; the remainder of the answer sheets were grouped with others from similar centers for an "in-depth" study to see if further sampling might reveal statistically different results. Dozens of participants requested the opportunity to participate in further research in connection with this project; hundreds of letters expressed the need for such instruments and agreed to cooperate later if they were unable to do so at the time they were invited; and most of them requested copies of the refined tests and percentile norms to use with their children in the future.

It seemed that insufficient returns from Full-Year programs needed to be supplemented by using returns from Summer programs from centers which reported having no Full-Year programs or which received the request for assistance too late to respond at the time. This meant that deadlines would need to be changed for reports; time extensions were requested and granted, thus enabling inclusion of summer programs. A "cut-off" date was announced but returns continued to be processed and analyzed for two additional weeks; a few centers returned their materials too late to be included in statistical tables or percentile ranks. A few teachers failed to furnish complete information requested for children, such as nationality, age, or sex, which meant that those answer sheets could not be used.

At three different times during the project, test items were subjected to a careful item analysis. Items were analyzed qualitatively in terms of their content and form, and quantitatively, in terms of their statistical properties. The former involves the consideration of content validity and the evaluation of items in terms of effective item-construction procedures. The latter involves principally the measurement of item difficulty and item validity. Both the validity and the reliability of the tests depend ultimately on the characteristics of the items. High reliability and validity can be built into a test in advance through item analysis. Changes in reliability can be effected when ambiguous items are eliminated and when new ones are added to the test which have positive rather than negative discrimination value. Similar changes in validity can result from the deletion of confusing or ambiguous items.

Test specifications were established on a basis of the objectives of pre-school educational programs and the subjects most often taught. Considered also were changes in behavior which schools are designed to produce, such as attitudes, interests, interpersonal relations, and other emotional or motivational characteristics, as well as the acquisition of knowledge and the development of intellectual skills. For these tests, major emphasis was placed on assessment of readiness for participation in public school activities normally offered. Other tests available in the field often overstress verbal ability and language facility; disadvantaged children are unlikely to do well on such tests. The writer hoped to develop readiness tests composed of pictures, figures, and symbols not necessarily associated with any particular kind of culture or environment and which would require no verbal ability. The child could respond by pointing to the item he chose; in case of physical handicap of any kind which might prevent the child from pointing, he could nod his head or blink his eyes in response to the test administrator's pointing to each alternative.

The most appropriate item form for the tests seemed to be multiple-choice based on pictures and symbols which do not require reading ability but would test a child's listening ability, his visual acuity, his imagery, his ability to follow instructions, and his recognition of similarities, differences, numerical analogies, and missing parts. Multiple choice items are the most widely applicable for all types of content and learning to be tested; they are easy to score and reduce chances of correct guessing present in "yes" and "no" responses.

Item Analysis

In constructing the readiness tests, the difficulty of an item is based on the percentage of persons who answer it correctly. The easier the item, the larger will this percentage be. The three different times each test was revised, this principle was used and items were arranged in order of increasing difficulty to give the child confidence in continuing in the experience and preventing him from wasting time on items beyond his ability to the neglect of easier items which he might know. One reason for this procedure was to eliminate items of unsuitable difficulty level, too easy or too hard, since they would reveal nothing about individual differences and would not affect the variability of test scores, and could contribute nothing to the reliability or validity of the test. The closer the difficulty level approaches .50 (% answering it correctly), the more differentiations the item can make. It is impossible to provide for maximum differentiation by making all items at the .50 level. Because of item intercorrelations, items with moderate spread of difficulty level are used with the average difficulty being near .50.

In the first and second item analysis for each form of the test, the writer used the upper and lower 27% (approximately) of the distribution the first time and the top and bottom 1/3 the second time. In both cases, the top group is called "U" and the bottom group is called "L"; the middle group, "M" was not used. Tables IX and XVIII show the rank of each item in each subtest of Form A and of Form B, respectively, based on difficulty. Several older children made perfect scores on both Form A and Form B, indicating that the experience was too easy and unchallenging for them.

With the large and somewhat normally distributed samples employed in the final refinement of these tests, the writer decided that the top 1,000 answer sheets and the bottom 1,000 answer sheets would compose the criterion distribution for the upper group ("U") and the bottom or lower group ("L"). These differences are shown in Table IX for Form A and in Table XVIII for Form B. A measure of item difficulty is shown from the same answer sheets by adding the number passing each item in the two criterion groups ("U" and "L"). In this way, items which are too easy or too difficult can be seen readily. However, difficulty level alone is insufficient. Even with satisfactory difficulty level, sometimes items show a negative and zero discriminative value when more of the L group pass the item than of the U group or when there is no difference. Further supplementary analysis was made by tabulating the number of students in the "U" and "L" groups who chose each option in answering the particular items. This enabled the writer to eliminate only poor decoys rather than discarding the item. When the writer administered both the experimental forms and the printed forms of the tests, she asked some of the more mature pre-schoolers to explain why they chose certain incorrect alternatives and encouraged the Teachers, Head Start Directors, Curriculum Coordinators, Day Care Center Directors, Psycholgists, and others who cooperated in the field-trial for the printed instruments to solicit similar explanations; the answers given by these children resulted in definite improvement of many items since their reasons for choosing an incorrect answer appeared valid. In the preliminary form of Test A, children chose the "different" baby as the one with only one safety pin, when the answer expected was the baby facing in the opposite direction from the others. This oversight was corrected in the printed Form A, along with others pointed out in adults' reactions to various items and in children's comments. Improved art work on both forms in the printed tests resulted in more valid responses, but careful attention to comments made by the test administrators has resulted in still further improvement and refinement. It is hoped that the refinements and improvements effected through the cooperation of hundreds of people in the field will result in broader usability of the instruments as they are made available to workers with disadvantaged pre-school childran, along with the norms which they helped to develop. During the course of this research project, criticism was sought and appreciated; dozens of suggestions for improvement have been incorporated into the refined instruments presented as Appendixes G and H of this report.

Tables IX and XVIII also show the numbers of students passing each item in the "U" and "L" criterion groups expressed as proportions (percentage reported as a decimal, as 50% = .50), the difference between these two proportions providing an index of item validity that can be interpreted independently of the size of the particular sample in which it was obtained and it agrees quite closely with other more elaborate measures of item validity. This difference is computed by changing to proportions the numbers of persons passing each item in both criterion groups and can have any value between +1.00 and -1.00. If all members of the "U" group and none of the "L" group pass an item, D equals +1.00. On the other hand, if all members of the "L" and none of the "U" group pass it, the difference is -1.00. If the proportions of both groups passing an item are equal, the difference is 0. It is directly proportional to the difference between the numbers of correct and incorrect discriminations; it also shares other traits with several other indices of item validity. The values are not independent of item difficulty but are biased in favor of intermediate difficulty levels. It should be noted that some apparently too easy items were retained in the refined forms of the tests for motivation purposes, but the decoys were altered to make them somewhat more difficult. All items with a negative discrimation value were eliminated in the early stages of development.

Methods of Determining Validity of Readiness Tests

Curricular or logical validity of the instruments was ascertained by checking the content of public kindergartens in terms of material ordinarily taught and how it is taught in pre-school programs, including objectives, methods of instruction (lesson plans and teaching units), books, pictures and other related materials. The problem in this area is much greater than testing curricular validity by a classroom teacher since these tests may be used throughout the entire nation. This involved a great deal of reading, discussing, conferring with people who agreed to serve as consultants for this project, and personal observation while in the process of teaching courses in the field of psychology by the writer. A judgment had to be made for one criterion as to the common elements taught since items must be representative, sufficiently complete, and appropriate in difficulty level. Further judgment was made as to how well the instruments reflect the content of the most frequently taught skills and knowledges with selection based on a cross-section of the material customarily taught and the way in which it is taught. Evaluations were returned to the writer from the teachers and directors involved in school programs for disadvantaged pre-school children who so graciously cooperated in the refinement and standardization of these instruments and who devoted thousands of hours to the project, with only one purpose in mind, evaluation instruments which would be valid, reliable, and usable in the education of disadvantaged pre-school children.

A few of the psychologists, teachers, and directors recommended that more test items be included in the last two parts of the tests, Numerical Analogies and Missing Parts; one suggested that an additional part should be included to test the children's vocabulary; and two recommended sub-tests which would assess children's social and emotional maturity as needed for entrance into public school programs. Hundreds of others felt that the test was long enough without addition of items; four recommended that the directions be simplified and that provisions be made for gestures to appropriate pictures; six suggested that sample items be included at the beginning of each subtest; one suggested that certain parts of the test be omitted for four-year-olds but administered to five-year-olds; and ten suggested that the directions be printed in French and in Spanish for the benefit of non-English speaking children (two long-distance telephone calls also pointed up the need for these translations by requesting permission to translate the directions for their non-English speaking children; it was decided that the translations should be uniform and included as part of the instruments rather than relying upon translations made by workers in the field). It was decided not to lengthen the tests and not to suggest omission of certain items for four-year-olds since the separate norms for different age levels reflect their lower scores because of their lack of familiarity with numerical concepts, for instance. Two psychologists and eight teachers felt that it would be better to record all of the children's answers rather than only the incorrect ones as they were instructed to do in the field-trial of the instruments for the convenience of the researcher in calculating scores quickly. When workers in the field use the refined instruments, they may wish to record all of the child's answers and score the answer sheets with a scoring stencil or template (included in Appendixes G and H of this report), instead of simply counting the wrong answers which have been recorded. Although this is the recommended procedure, it would have consumed too much time for thousands of answer sheets; it will not constitute a problem for the teacher who is scoring the answer sheets for only one class. The refined forms of the tests reflect many of the suggestions made by workers in the field and the writer is deeply grateful for those comments and criticisms which have resulted in improved instruments.

The empirical or statistical method for determining validity examines the instrument by checking the results obtained after the test is administered to pupils. It is more objective than is the curricular method because an index of validity is obtained from which an interpretation is made. It involves correlating the results of an instrument of unknown validity against a set of criterion scores, the validity of which has been established or accepted. The higher the unknown set of scores correlates or relates to the known set, the greater is the validity. Empirical validity may be considered as either concurrent or predictive, sometimes classified as separate types of validity; both are, however, examples of empirical validity differing only as to time sequence of the criterion score. Concurrent validity relates a set of scores to an accepted present criterion of performance; predictive validity relates a set of scores to a criterion based on performance at some later time. Examples included in Appendix C of this report include correlations between scores of children on Form A and Form B of the Readiness Tests being developed with scores of the same children on the following standardized tests: (A) Peabody Picture Vocabulary Test, (B) Goodenough-Harris "Draw-a-Man" Test, (C) ABC Inventory, (D) Caldwell Pre-School Inventory (E) Metropolitan Readiness Test, (F) Stanford-Binet, (G) Science Research Associates Pre-School Test, (H) Vineland Scale of Social Maturity, (I) Columbia Mental Maturity Scale, (J) American Guidance Pre-School Attainment Test Form I, (K) American Guidance Pre-School Attainment Test

Form II, (L) Macmillan Readiness Test, (M) Screening Test of Academic Readiness Potential Score, (N) Screening Test of Academic Readiness IQ Score, (O) Marianne Frostig's Developmental Test of Visual Perception, (P) Jordan and Massey Readiness Test, and (Q) Slosson Intelligence Test. The average correlation found between each of these tests and Form A and Form B of the Walker Readiness Test and between the standardized test scores and the teachers' rankings of the children in their order of readiness for entrance into public school programs is presented in a later section of this report, Findings and Analysis: Validity of Readiness Tests. Individual correlations between each of the standardized test scores mentioned above and the scores of children on Form A and Form B of the Walker Readiness Test and between the standardized test scores and the teachers' rankings of the children in their order of readiness for entrance into public school programs may be found in Appendix C of this report.

During the early stages of development of Forms A and B of the Readiness Test, correlations between standardized tests and the mimeographed forms of the experimental tests where somewhat lower than those found between standardized tests and the printed forms of the experimental tests. Improved art work in the latter would probably account for the increased correlations. Any mechanical deficiency can affect the validity of a measuring instrument. It is felt that subjecting instruments to a process of refinement and improvement at different stages of development should certainly result in more valid instruments.

Only a few of the centers involved in the early stages of development reported children's scores on standardized tests. Of the 364 classes represented in standardization and validation of Form A of the Readiness Test, only 54 reported having administered to the children standardized tests. Of the 301 classes represented in standardization and validation of Form B of the test, 48 reported scores of children on standardized tests. The most popular test in areas which did give such tests seemed to be the Peabody Picture Vocabulary Test. Twenty-five of the centers which reported using the Peabody Picture Vocabulary Test tested the same children with Form A of the Walker Readiness Test; only 19 of the centers were able to administer Form B of the test. It would be helpful if comparisons could be made with the Stanford-Binet administered to more children and with the Wechsler Intelligence Scale for Children. Several centers reported using these well-known scales with a few children recommended for psychological testing by trained personnel working with troubled Head Start children; these findings were reported to the researcher but could not be used in this research since socres of only one or two children were usually available from any one center. Higher correlations were found between the Walker Tests and some of the non-verbal standardized tests than were found between the Walker Tests and tests which stress vocabulary; with vocabulary-oriented tests only moderate correlations were found. Correlations would be expected to be higher with individual non-verbal or performance tests. All of these correlations were lower than were found between children's scores and the way in which the teacher ranked the children in their order of readiness for entrance into public school programs; Appendix B contains tables showing these correlations and correlations found between children's scores on Form A and Form B of the Walker Test for Full-Year Urban, Full-Year Rural, Summer Urban, and Summer Rural Programs, both in centers where both forms of the Walker Test were administered and where just one form was given. Significant findings in connection with these correlations are presented in a later section of this report. It would be helpful if a correlation with other outside criterions could be computed to see if the instrument is a good predictor of readiness for entrance into public school. A follow-up study of the performance of the child when he actually enters school is recommended but was not within the scope of this project; this would be a good way to establish predictive validity of the instruments.

To date, efforts have been made to establish concurrent validity through two techniques: (1) correlations between children's scores on the experimental instruments and their scores on standardized tests, described briefly above and included in detail in Appendix C. The more closely the instruments can differentiate among the students being measured, the higher the validity coefficient is likely to be. The higher the coefficient of validity, the better the instruments will be. Concurrent validity was established by comparing results of the instruments to results that criteria have already established to see whether comparable results could be achieved more economically, objectively, and simply. The relatively low correlations in some cases may be attributed to the fact that many of the instruments used as criterions were probably not culture-fair, discriminating against the disadvantaged children because of their impoverished background which would not permit many intellectual and cultural experiences presumed on the part of many of the standardized tests. Obviously, perfect validity is an ideal and it is rarely approached. Evidence of validity will have to be evaluated in terms of appropriateness of the criteria for disadvantaged children, the degree of agreement, and the extent to which the instruments will help to achieve the present situational demands.

(2) Teachers of disadvantaged children who participated in this research project were asked to rank their children in order of their readiness for entrance into public school according to the subjective appraisal of the teacher of the children's intellectual maturity and readiness for school-like experiences. When possible, it was recommended that some person other than the teacher who did the ranking of the children should do the actual testing; in many cases it was not possible to have two separate persons involved, but in most instances, the teacher most intimately involved with the children in their everyday experiences did the ranking, and the tests were administered by Head Start Directors, Day Care Center Directors, Vista Volunteers, Graduate Students, Social Services Coordinators, Curriculum Coordinators, and School Psychologists. It was felt that the correlations found when the two tasks were performed by different people were more valid, although often somewhat lower. In a few instances, correlations were extremely high and positive (some were .95 and higher); it was thought that Test Form A might have been administered prior to the ranking pro-

cedure in some cases; often equally high correlations were found between those teachers' rankings and the scores on Form B which was administered long after Form A results and the ranking letter had been mailed to the researcher. Higher correlations were usually found between results on Form A and the teachers' rankings in Full-year Programs where the teachers had had the opportunity to work with the children for several months than were found in summer programs where the children were enrolled usually only for six to eight weeks. These rankings of children (presented in Appendix B) served as another criterion outside the test situation and the method of checking the validity of the sets of scores by this empirical method is through the technique of correlation or the degree of relationship found existing between the ranks of children as assigned by teachers and their ranks on the tests themselves, using the Rank Coefficient of Correlation Method. Significant statistical findings are discussed in a later section of this report. The higher the correlation between the measuring instrument and the criterion, the better the validity. It is difficult to find good criterions outside the instrument with which to validate the instruments. A judgment had to be made concerning to what degree a criterion was appropriate for the specific purpose involved; in the absence of valid culture-fair standardized tests for use with disadvantaged pre-school children in most centers, teachers' evaluations seemed to be the alternative. In most cases, higher correlations were anticipated and found between the teachers' rankings and the instruments being developed in this project than were discovered between those instruments and currently available standardized tests.

Methods of Determining Reliability of Readiness Tests

While validity of an instrument refers to its truthfulness and the extent to which it measures what it purports to measure, reliability refers to the dependability, stability, and confidence afforded to an instrument which measures consistently what it does measure. Reliability makes possible the obtaining of similar results upon repetition. An instrument can be reliable (consistent) without being valid, but it cannot be valid without also being reliable. This means that similar results might be obtained if an instrument is used a second time; the instrument could be reliable but one would be unsure that it was measuring what it should measure if validity were not first established for the instrument. Although high reliability is not a guarantee that an instrument is completely good, low reliability would indicate that it was poor. Validity must be ascertained before an apparently reliable instrument can be used with assurance.

Three methods of determining the reliability of an instrument also involve the technique of correlation. The closer the agreement between the two sets of scores, the greater the reliability. (1) Test-Retest Method: the same instrument is used twice with the same group of pupils and the two sets of scores are correlated to determine the degree of agreement. This form of reliability index is called the coefficient of stability. Results obtained from this method are usually lower than correlations found with the other two methods. The main problem involved is the length of time elapsing between the two administrations of the test. If the time lapse is too short, immediate practice or remembering effect will modify results; if too long, the learning which takes place causes results to be different. (2) Alternate or

Equivalent or Parallel Forms Method: two or more forms of the instrument are prepared, equivalent as to content, difficulty, type of items, and the like. One form is administered and the results correlated with those of the equivalent or alternate form. This is called the coefficient of equivalence. The greater the agreement or correlation, the greater the reliability. It is difficult to make alternate forms of a test, but in this project a comparison was made between results on the crude original form of the test and the mimeographed Form A and the printed Form A used in the nation-wide field-trial; the same was done for Form B. Significant findings are presented in a later section of this report. Appendix B shows a summary of the correlations between Form A and Form B results divided into Full-Year Programs, in which case several weeks could elapse between administrations, and Summer Programs, in which Form A was administered as early as possible and Form B was given to the same children as late as possible and results returned to the writer on or prior to the date arbitrarily set as the cut-off date beyond which returns could not be included in item analysis or norm development. (3) *Split-Halves or Chance-Halves Method*: this is the most practical because the instrument needs to be administered only once. After the test is given, it can be scored in two parts; first, the odd-numbered items are scored to obtain a total score for this half, then the even-numbered items are scored to obtain a total score for the other half. Thus, there are two columns of scores, the odd and the even; a correlation is run between the two scores. When this method is used, the initial coefficient of reliability obtained is for one-half of the test only and must be converted to the total reliability by a conversion formula. This method measures the internal consistency of the test items. As an additional assessment of reliability, this method was used to check against other correlations in four classes of a Summer Program where the writer could administer the tests herself. Significant findings are presented in a later section of this report.

Frequent reference has been made to the term "coefficient of correlation." The formulas used in assessing the validity and the reliability of the instruments include the following:

Rank Coefficient of Correlation (Rho) = $\frac{6 \text{ x Sum } D^2}{N\ (N^2 - 1)}$ (D = difference in ranks)
(N = number of people)

Product Moment Correlation Coefficient =

$$r_{xy} = \frac{N\Sigma dxdy - (\Sigma fxdx)\ (\Sigma fydy)}{\sqrt{N\Sigma fxdx^2 - (\Sigma fxdx)^2}\ \sqrt{N\Sigma fydy^2 - (\Sigma fydy)^2}}$$

Many factors will affect the reliability of an instrument; any one of the following can distort the picture: length of instrument, objectivity, classroom environment, motivation, directions, supervision, and pupil factors such as physical condition, emotional condition, pupil-teacher attitude, and the desire to learn. Many of these things could not be controlled in such a project, but objectivity and length of instrument could be adequately controlled. If a child is shy or reluctant to respond, the examiner may need to spend a few minutes in reassuring him and convincing him that the test is really only a game, but an average of 8 to 10 minutes was reported by most test administrators in an individual (one-to-one) relationship; a few reported requiring more time. Increased familiarity with test items and possible reactions caused the time of administration to decrease with increased numbers of children tested by the same administrator.

FINDINGS AND ANALYSIS

The most significant findings are the Test Forms A and B which have been developed and refined as a major objective of this project. These are the result of careful item analysis outlined in this report in the section on Methods. Items are arranged in order of increasing difficulty as they are so ranked in Table IX for Form A and XVIII for Form B. In the refined forms, directions have been translated into French and Spanish for greater uniformity of results when administered to non-English speaking pre-school children. A summary of important statistical measures and percentile ranks for each age level is included on the last page of each test. A sample answer sheet and a scoring stencil complete Appendix G for Form A and Appendix H for Form B. These appendixes may be removed for copying by ERIC for dissemination to Head Start and Day Care Center Directors and other workers with disadvantaged children who may request them. It is felt that most people will not need a copy of the entire report, but they may wish copies of the pages which present the statistical measurements for each age level as well as the percentile ranks given on the back page of each form of the test. These additional measurements are presented in Tables VIII for Form A and XVII for Form B; in these tables the percentile ranks are given in the terms of class intervals. Table VII for Form A and Table XVI for Form B present percentile ranks for all of the scores on each in a discrete series, if these are desired.

Validity of Readiness Tests

Appendix C of this report shows correlations between scores of children on various standardized tests and Form A and Form B of the Walker Readiness Test and between scores on standardized tests and teachers' rankings of children in their order of readiness for entrance into public school programs. Appendix C of this report gives more details concerning the empirical validity of the instruments as ascertained by this method of correlation between results of an unknown validity against sets of criterion scores, the validity of which has been established or accepted. The highest correlations were found between the Readiness Tests being developed in this project and the Metropolitan Readiness Readiness Test (.791 with Form A and .757 with Form B), the Caldwell Pre-School Inventory (.807 with Form A and .708 with Form B), the Columbia Mental Maturity Scale (.677 with Form A and .697 with Form B), and Slosson Intelligence Test (.628 with Form A). Moderately high correlations were found with several others, such as the Peabody Picture Vocabulary Test (.404 with Form A, .504 with Form B), Goodenough-Harris "Draw-a-Man" Test (.572 with Form A, .505 with Form B), Stanford-Binet (.437 with Form A, .429 with Form B), Screening Test of Academic Readiness Potential Score (.576 with Form A, .561 with Form B), Screening Test of Academic Readiness IQ Scores (.515 with Form A, .428 with Form B), Frostig Developmental Test of Visual Perception (.442 with Form A, .516 with Form B), and Jordan and Massey Readiness Test (.429 with Form A and .632 with Form B). Lower correlations with others were found.

The average correlations for all of the standardized tests reported by 54 teachers who also administered Form A of the Walker Test and 47 teachers who also administered Form B of the Walker Test are presented below, along with the average correlation between the children's scores on the standardized tests and the teachers' ranking of the children in their order of readiness for entrance into public school programs. The standardized tests are identified by letters of the alphabet as follow: (A) Peabody Picture Vocabulary Test, (B) Goodenough-Harris "Draw-a-Man" Test, (C) ABC Inventory, (D) Caldwell Pre-School Inventory,(E) Metropolitan Readiness Test, (F) Stanford-Binet, (G) Science Research Associates Pre-School Test, (H) Vineland Scale of Social Maturity, (I) Columbia Mental Maturity Scale, (J) American Guidance Pre-School Attainment Test Form I, (K) American Guidance Pre-School Attainment Test Form II, (L) Macmillan Readiness Test, (M) Screening Test of Academic Readiness Potential Score, (N) Screening Test of Academic Readiness IQ Score, (O) Marianne Frostig's Developmental Test of Visual Perception, (P) Jordan and Massey Readiness Test, and (Q) Slosson Intelligence Test.

RANK COEFFICIENT OF CORRELATION BETWEEN SCORES ON VARIOUS STANDARDIZED TESTS AND FORM A AND FORM B OF WALKER READINESS TEST AND BETWEEN SCORES ON STANDARDIZED TESTS AND TEACHERS' RANKINGS OF CHILDREN IN THEIR ORDER OF READINESS FOR ENTRANCE INTO PUBLIC SCHOOL PROGRAMS

Standardized Test	Number of Centers	Number of Children	Average Correlation with Form A	Average Correlation with Form B	Average Correlation with Teachers' Rankings
A	25	368	.404	.504	.474
B	3	42	.572	.505	.397
C	4	52	.584	.716	.610
D	2	43	.807	.708	.629
E	5	69	.791	.757	.650
F	4	47	.437	.429	.418
G	1	15	.204	.356	.301
H	1	10	.370	.425	.398
I	1	20	.677	.697	.698
J	1	10	.213	.309	.402
K	1	10	.201	.671	.410
L	1	10	.249	.355	.331
M	1	10	.576	.561	.571
N	1	10	.515	.428	.501
O	1	19	.442	.516	.496
P	1	20	.429	.632	
Q	1	14	.628		.610

As can be noted by comparing the last column above, indicating correlations between teachers' rankings of children and their scores on various standardized tests, with similar correlations between teachers' rankings and childrens scores on Form A and Form B of the Walker Readiness Tests presented in Tables XXV through XXXIII, the correlations are somewhat higher in the latter. (See Appendix B.)

Appendix B, which lists in different tables the coded centers classified as Full-Year Urban, Full-Year Rural, Summer Urban, and Summer Rural, reveals the following significant findings:

In Full-Year Urban Programs (See Table XXV), the correlations found in the 113 classes represented between the teachers' rankings of the children and their scores on Form A of the Readiness Test ranged from .985 to -.433, the average correlation being .705. The average weighted correlation for the 1746 children enrolled in Full-Year Urban Programs was .696.

In Full-Year Rural Programs (Table XXVI), the correlations found in the 85 classes represented between the teachers' rankings of the children and their scores on Form A of the Readiness Test ranged from .997 to -.143, the average correlation being .707. The average weighted correlation for the 1439 children enrolled in Full-Year Rural Programs was .708.

In Summer Urban Programs (Table XXVII), the correlations found in the 61 classes represented between the teachers' rankings of the children and their scores on Form A of the Readiness Test ranged from .976 to .107, the average correlation being .657. The average weighted correlation for the 939 children enrolled in Summer Urban Programs was .682.

In Summer Rural Programs (Table XXVIII), the correlations found in the 45 classes represented between the teachers' rankings of the children and their scores on Form A of the Readiness Test ranged from .999 to -.080, the average correlation being .588. The average weighted correlation for the 720 children enrolled in Summer Rural Programs was .591.

In Full-Year Urban Programs (See Table XXV), correlations found between the teachers' rankings of the children and their scores on Form B of the Readiness Test ranged from 1.00 to -.107, the average being .661. The average weighted correlation for the 1581 children tested with Form B in Full-Year Urban Programs was .655.

In Full-Year Rural Programs (Table XXVI), correlations found between the teachers' rankings of the children and their scores on Form B of the Readiness Test ranged from .992 to .055, the average being .660. The average weighted correlation for the 1308 children tested with Form B in Full-Year Rural Programs was .660, also.

In Summer Urban Programs (Table XXVII), correlations found between the teachers' rankings of the children and their scores on Form B of the Readiness Test ranged from .980 to -.047, the average being .608. The average weighted correlation for the 863 children tested with Form B in Summer Urban Programs was .681.

In Summer Rural Programs (Table XXVIII), correlations found between the teachers' rankings of the children and their scores on Form B of the Readiness Test ranged from .977 to -.430, the average being .562. The average weighted correlation for the 680 children tested with Form B in Summer Rural Programs was .586.

These correlations were indications that the experimental instruments possess validity sufficient to qualify their dissemination throughout the nation to persons involved in the education of disadvantaged children. This observation was further confirmed by the "in depth" evaluation of returns from several agencies who mailed to the researcher answer sheets for all of the children enrolled in their summer programs. One class was selected at random from each of these to include in the sample used for norm development and in the item analysis for each form of the test. The remainder were analyzed separately in an attempt to determine whether further sampling might result in appreciably different results. Returns from both Rural and Urban centers were organized into separate scattergrams and statistical tables. Results were quite similar to those found for the samples taken from each of the 50 states. "In depth" tables and statistical measures are given in Tables XXIII, XXIV, XXXV, and XXXVI. These indicate that collection of additional returns would not affect the percentile ranks presented in Table VII for Form A and in Table XVI for Form B greatly enough to justify the additional time and expense which would be involved. The same conclusion was drawn by comparing the measures of central tendency and variability found in the "in depth" evaluation with the same measures for the sample classes presented in Table VIII Form A and Table XVII for Form B.

Table XXXI presents correlations between teachers' rankings of children and the children's scores on one form of the test when the other form was not administered. For Full-Year Urban Programs in 33 centers, the average correlation between the teachers' rankings and Form A scores was .621, the average weighted correlation for the 509 children involved being .587. In five Summer Urban Programs, the average correlation between Form A scores and the teachers' rankings was .769, the average weighted correlation for the 72 children involved being .764. In one Summer Urban Program, 10 children were tested with Form B only; the correlation was .306. Two Full-Year Urban teachers who gave Form A to a total of 24 children did not rank their children; one gave Form B to 20 children. Two Summer Urban teachers administered Form A of the test but did not rank their 40 children. These scores were all used in the percentile ranks but could not be included in the correlations. This accounts for some of the discrepancy between totals reported for each set of statistical computations.

Table XXXII presents correlations between teachers' rankings of children and the children's scores on one form of the test when the other form was not administered to Rural children. For Full-Year Rural Programs in 19 centers, the average correlation between the teachers' rankings and Form A scores was .746, the average weighted correlation for the 272 children involved being .726. One Full-Year Rural Program administered Form B but not Form A to 12 children. The correlation was .735. In five Summer Rural Programs, the average correlation between Form A scores and teachers' rankings of the children was .491, the average weighted correlation for the 77 children involved being .388. One Summer Rural Program administered Form B but not Form A to their 15 children; the correlation was .218.

Totals for all of these tables do not represent all of the children involved in the standardization of Form A and Form B. One Summer Rural teacher administered Form A of the test to 20 children but did not rank them; one Full-Year Rural teacher gave Form A of the test to 20 children but did not rank them; and one Summer Rural teacher gave Form B to 19 children but did not rank them. It is felt that the ranking letters were enclosed with packets of executed answer sheets which were reported lost in the mail. Although these children were not included in computing the coefficients of correlation discussed in this report, they were used in the development of percentile ranks, means, medians, standard deviations, and semi-interquartile ranges which were computed for a total of 6662 children on Form A of the test and 5271 children on Form B of the test.

Combining data presented in Tables XXV through XXXIII, the average correlation between 367 teachers' rankings of children and the children's scores on Form A of the test in all situations (Full-Year Urban, Full-Year Rural, Summer Urban, and Summer Rural, both when both forms of the test were administered to the children and when only Form A could be used), the average correlation was .668, the average weighted correlation for the 5774 children thus ranked was .675. It was reported that only 364 centers participated in this project, but in a few instances two or more teachers ranked 10 or fewer children; not all 364 centers involved in standardization procedures were included in the tables which present correlations.

Combining data presented in Tables XXV through XXXIII, the average correlation between the 337 teachers' rankings of children and the children's scores on Form B of the test in all situations (Full-Year Urban, Full-Year Rural, Summer Urban, and Summer Rural, both when both forms of the test were administered to the children and when only Form B could be used), the average correlation was .612, the average weighted correlation for the 4469 children thus ranked was .633.

This method of assessing the empirical validity for the test revealed that validity was somewhat higher for Form A than for Form B, .675 as compared with .633.

Combining data presented in Appendix C of this report, the average correlation between the children's scores on Form A of the test and all of the standardized tests administered in the 54 centers which reported administering standardized tests was .476, the average weighted correlation for the 769 children involved being .477. The average correlation between Form B scores and all standardized tests administered in the 47 centers which reported administering standardized tests was .535, the average weighted correlation for the 677 children involved being .524. This method of ascertaining empirical validity for the instruments resulted in somewhat lower correlations than those found with teachers' rankings of the children discussed above; this was anticipated in view of the fact that some of the standardized tests used may discriminate against disadvantaged pre-school children because of lack of culture-fairness. It was interesting to note that the correlations between children's scores on standardized tests and teachers' rankings of the children were also lower than those found with the Walker Readiness Tests.

The average correlation between teachers' rankings and standardized test scores in the 47 centers where both forms A and B were administered and where standardized tests were given was .493, the average weighted correlation for the 671 children involved being .562.

It was interesting to compute some of the coefficients of correlation for answer sheets and ranking letters chich were returned after all of the scattergrams and statistical computations had been completed for the children involved in standardization of the tests. The late arrivals did not appear to to differ very substantially from the early ones. Seven packets arrived late. The correlations are presented in Table XXXIII. The average correlation between Form A scores and the teachers' rankings of late arrivals was .650, the weighted average being .549 for the 95 children involved. The average correlation between Form B scores and the teachers' rankings was .571, the average weighted correlation being .493 for the 95 children. The average correlation for the first 5774 children on Form A with their teachers' rankings was .675, for the 4469 children on Form B, it was .633. The lower correlations for the late arrivals can probably be explained by the short time the teacher had known the children before ranking them, in comparison with all of the Full-Year children included in the norming groups, where the teachers had worked with the children for 6 or 7 months before being asked to rank them. The larger numbers of children involved also would appear to indicate the greater validity of the "on time" returns in comparison with the small number of late arrivals.

Reliability of Readiness Tests

On a limited scale, the writer used all three methods for assessing reliability of the instruments being developed, discussed in an earlier section of this report, Methods of Determining Reliability of Readiness Tests. The Test-Retest Method probably had less value for this project than probably would be claimed in other forms of research. While the items were not identical, the same questions and decoys were used in the early mimeographed and duplicated forms of the tests as were included in the printed forms used in the nationwide field trial. With crude art work on the former and poorer workmanship in general, in comparison with the printed forms, the correlation between children's scores on the two was significantly high, .875. Unfortunately, too few children were available for testing with the crude form and the printed form which was not available in most instances until after the children had already been enrolled in public school programs. Obviously, the other methods discussed would have more value for this project. A larger number of children were available for testing with the crude mimeographed Form B and the printed Form B; the average correlation for these two sets of scores for fewer than 200 children was .860; early ones were .889 and .910.

It is difficult to make equivalent items for Alternate or Parallel Methods for appraisal of an instrument's reliability. While Form A and Form B of the Walker Test are equivalent as to content, number of items, type of items, and directions for administering and scoring, and both are arranged with items presented in order of increasing difficulty, an analysis of the percentile ranks and statistical tables (Tables VII and VIII, Form A; Tables XVI and XVII for Form B) reveals that Form B of the test is somewhat easier than Form A or else the children were more "test wise" which resulted in their higher averages. The latter was the explanation given by many of the teachers who participated in the project; Form A was the first experience the children had ever had with testing but they were more relaxed and enjoyed Form B for having first been tested with Form A. The teachers were about equally divided as to which of the two forms appeared easier for their particular class of children; fewer than three dozen teachers commented on the comparative difficulty of the items in the two tests, although many thought the art work was a little better on Form B which could account for the increased scores on Form B. It is felt that the higher scores on Form B might also be accounted for by a slight increase in age of the children between the administrations of the two tests. This discrepancy should in no way affect the validity or usability of either instrument if the appropriate tables of percentile ranks and statistical measurements are used for each form. (It was decided to present only the percentile ranks for different age levels as part of the test booklets for Form A and Form B, along with the mean, median, top quartile, bottom quartile, semi-interquartile range, and standard deviation for each age group, which are included as Appendixes G and H of this report and which may be removed for copying by ERIC for dissemination to Head Start and Day Care Center Directors and teachers and other workers with disadvantaged pre-school children who request them. Appendixes G and H also contain sample answer sheets and scoring stencils. Most people will not need a copy of the entire report, but they may wish copies of Tables VII and VIII for Form A and of Tables XVI and XVII for Form B, in addition to the materials in Appendixes G and H).

Of greatest significance are the correlations between children's scores on Form A and Form B of the Walker Readiness Test when both were administered in various centers in every state of the nation. These correlations are presented for coded individual centers in Appendixes A and B. Correlations were calculated by using both the Product Moment Coefficient of Correlation and Scattergrams and the Rank Coefficient of Correlation. Tables XIX through XXIV show scattergrams and product moment coefficients of correlation between children's scores on Form A and Form B of the test in different kinds of programs, Full-Year Urban, Full-Year Rural, Summer Urban, and Summer Rural, the last two being devoted to "in depth" evaluation of all children enrolled in selected Summer Urban and Rural Programs. Since this method indicates correlation between actual scores on the two forms of the test, rather than correlation between children's ranks on the two tests, it is considered somewhat better for assessing reliability of the instruments. It is interesting to compare these findings with those presented in Tables XXV through XXXIII based on the Rank Coefficient of Correlation for many of the same groups of children, both those included in the sample and those involved in "in depth" evaluation of the instruments.

In Full Year Programs in Urban Centers, for 1605 children who were tested with both forms of the test in the 113 centers, the average correlation was .649, the average weighted correlation being .655, when using the Rank Coefficient of Correlation Method. The correlation for the same sets of scores found by the Product Moment Method was .691. (See Tables XIX and XXV for comparisons).

The 1302 children tested with both forms of the test in Full-Year Rural Programs were found to have an average correlation between the two forms of .663, the weighted average being .670, using the Rank Coefficient of Correlation Method. The correlation for the same sets of scores found by the Product Moment Method was .779. (See Table XX and Table XXVI for comparisons in the 85 centers involved).

In Summer Urban Programs, for 885 children involved in the 61 centers which administered both forms of the test, the average correlation between the two forms was .676, the weighted average being .680, using the Rank Coefficient of Correlation Method. The correlation for the same sets of scores found by the Product Moment Method was .742. (See Tables XXI and XXVII for comparisons).

In Summer Rural Programs, for 671 children enrolled in the 45 centers which administered both forms of the test, the average correlation between the two forms was .697, the average weighted correlation being .698. For this set of scores, the Product Moment Coefficient of Correlation was .741. (See Tables XXII and XXVIII for comparisons).

In Summer Urban Programs, for 537 children enrolled in 43 classes selected for "in depth" evaluation of the testing instruments (not counting one class from each of these centers which was included in the sample), the average correlation between the two forms of the test was .594, the average weighted correlation being .600, using the Rank Coefficient of Correlation Method. For the same set of scores, the Product Moment Coefficient of Correlation was .738. (See Tables XXIV and XXIX for comparisons).

In Summer Rural Programs, for 385 children enrolled in 33 classes selected for "in depth" evaluation of the testing instruments (not including one class from each of these centers chosen at random for inclusion in the sample), the average correlation between the two forms of the test was .700, the average weighted correlation being also .700. The Product Moment Coefficient of Correlation for the same set of scores was .760. (See Tables XXIII and XXX for comparisons).

The Split-Halves or Chance-Halves Method for ascertaining the reliability of the instruments is the most practical method, since it involves only one administration of each instrument, as described in an earlier section of this report. As an additional assessment, this method was used to check against other correlations in four classes of a Summer Program where the writer could administer the tests. The coefficient of reliability for the even-numbered items was .880 for 62 summer children; total reliability found by the conversion formula for Form A was .868. For Form B, the coefficient of reliability for the even-numbered items was .887 for summer children; total reliability found by the conversion formula for Form B was .889.

For determining the reliability of Form A and Form B of the test which were administered to 6662 children and 5271 children respectively, following formula was used: $r_t = \frac{n\sigma_t^2 - M(n - M)}{\sigma_t^2\,(n - 1)}$

The mean for Form A for all children tested ($n = 6662$) was 33.61; its standard deviation (σ) was 8.61. When these two measures are substituted in the above formula, the reliability for Form A can be estimated as .869. The mean for Form B for all children tested ($n = 5271$) was 38.23; its standard deviation (σ) was 8.36. Substituting these two measures in the formula presented above, the reliability for Form B of the test can be estimated as .889. (See Table VIII for measurements used in formula for Form A, Table XVII for those used in formula for Form B).

While it is felt that the number of children and sample classes involved in the standardization of Form A and Form B of the test is sufficient to justify offering the instruments for widespread use, it is interesting to compare the findings with those of late arrival packets and other statistical computations involved in this project. Evidence indicates no further need for broader sampling; the applicability and validity could probably be strengthened by another year of field-trial in selected centers in different regions. Validity and reliability of the instruments both appear to be strong enough to qualify the instruments as worthy of inclusion in a list of evaluation possibilities for disadvantaged pre-school children. Dozens of the adults involved in administering these tests in the various states reported that they were the best they had seen for the purpose of evaluating disadvantaged pre-school children because they are obviously culture-fair. Further trials and experimentation would be appreciated by the writer.

Administration of Tests

Comments from workers in the field who administered the tests to their children in Head Start and Day Care Centers have resulted in revised, completely usable directions for administering the tests. Directions for each sub-test have been translated into French and Spanish to encourage uniformity in test administration to non-English speaking children. An example precedes the first item in each sub-test; this example can be used to decide whether or not the child understands directions and what he is supposed to do by way of response before the sub-test is actually begun. Figures and symbols used in the test items in Appendixes G and H are more nearly perfect and in better proportion to each other. This is an untimed test, so the teacher will not need to watch the clock. Eight to 10 minutes should be ample time to administer each form of the test to one child. It was found that best results were obtained when the child could be taken to a quiet room, away from other children and distractions. If a few minutes can be spent in establishing rapport with the child and convincing him that he is going to play a new game, he will feel more secure and will be more likely to do his best than if he feels apprehensive or frightened at a strange "test" experience.

Directions are simple and clear and complete so that the tests need not be administered by specially trained personnel; better results may be anticipated whenever the test administrator is a person known and respected by the child. With some explanation, orientation, and observation of a teacher administering the tests, teacher aides may be trained to administer the tests. It is important that the directions be followed very carefully. Deviations could very well invalidate the use of the norms provided with the test booklets (Tables A and B).

Scoring of Tests

The first crude forms of the tests were constructed with the intention that each child would make his own circles around chosen alternatives presented for each test item. Experiences with three-, four-, and five-year-olds soon convinced the examiners that this was not the best method. Subsequent trials were conducted in which the child was asked to point to the correct choice and the examiner then encircled the chosen figure or picture. Since the tests contained only a few items on each page, scoring became quite tedious, involving endless turning of many pages. Subsequent administrations have been done with separate answer sheets. This is quicker, easier to score, and makes the results more readily available for examination and interpretation when clustered on one page. It will also make for greater economy, since the teacher will need only one copy of the test booklet itself and enough answer sheets for all members of the class. Scoring is quite simple and objective; it may be done by a teacher aide or volunteer worker if the teacher can spend a little time explaining and demonstrating just how it is to be done. The scoring stencil which accompanies each test booklet should be placed over the child's answer sheet; the holes in the stencil will quickly reveal whether the correct answer has been circled. The score is simply the number of correct answers out of a possible 50 points. The scorer should ascertain that no question has more than one answer before placing the stencil over the answer sheet.

For speed in scoring, test administrators who participated in this project were asked to record only the incorrect responses of children; if items were left blank, the researcher knew that the child answered those items correctly. In this way, a quick glance allowed the scorer to count the number of items for which answers had been encircled. Fifty minus the number of circles was the child's score. This method can be used with the refined forms, but the child may become concerned unless he sees the teacher record all of his answers rather than just the incorrect ones. Several teachers reported that the children watched to see which items were marked; dozens of teachers marked all of the children's answers. This did not in any way invalidate the returns but it did require more time for scoring.

Interpretation and Application of Results

In a standardized instrument, the norms accompanying the instrument will determine the ease of interpretation and application. It is felt that the percentile ranks provided in Tables A and B (on the last page of the test booklets included in Appendixes G and H of this report) will be sufficient for most people concerned with the evaluation of disadvantaged pre-school children. However, if a larger booklet could be made for each test form, Tables VII and VIII should be included in the Form A booklet, and the Tables XVI and XVII should be included in the Form B booklet. The additional two pages would probably be well worth the extra expense involved for each test booklet.

It should be remembered that norms are aids or guides in the interpretation and application of results, not standards for the pupils to meet. They are guideposts and will show where a student ranks as an aid to the teacher in planning work with the individual pupil. If more items had been included in the last two sub-tests of each form of the Readiness Test, separate norms could have been developed for each sub-test. This could have helped the teacher make a diagnosis of the strengths and weaknesses of each child in order to prepare a remedial program for him. Although percentile ranks were calculated only for total scores for children of different age levels (in intervals of six months), it is believed that careful analysis of the child's responses on each sub-test will enable the teacher to help the child overcome apparent weaknesses in such concepts as similarities, differences, numerical analogies, and missing parts. With two forms of the test, one form can be administered early during the school year, analysis of strengths and weaknesses of children made, and remedial programs devised for each child. The alternate form may be used at the end of the year to test the adequacy of the program and to ascertain the growth and improvement made by each child.

Translating raw scores to a common scale for interpretation and application is the purpose of norms, since raw scores are difficult to interpret and apply; they can be interpreted individually only with total score known and when they would all be weighted the same; raw scores probably will have different total weights and can be compared with others only by converting them to some common scale, such as a percentile scale, with which one can interpret them individually and can also make a comparison between them. Since most workers in the field are more familiar with percentile ranks than with age norms or grade norms or stanines, it was felt that placing children in a position on a scale from 0 to 100 to which their raw scores would entitle them would be most appropriate. It will also be helpful to compare each child's score with the appropriate classification in Tables VII and VIII for Form A and Tables XVI and XVII for Form B.

Representativeness of the Sample

Probably one of the most significant problems was the inability to secure sufficient returns from certain states to claim representative sampling. The tables and map presented in Appendix E of this report show which states and regions participated and the extent of their cooperation. Table XXXVII compares a description of the children (in per cents) with data provided by the Head Start Research Analyst in Washington, D. C., for Full-Year and Summer Programs for 1968; that office reported this to be the most recent data available and suggested that it might be extrapolated to compare with the 1969 sample used in this project. In very few instances were the percentages comparable. In the sample, if age, race, sex, etc., were not reported, the answer sheets were not used; in the census report, they were indicated "not reported." A dearth of returns from Full-Year programs resulted in fewer younger children being included in the sample than were reported in the 1968 report from the Research Analyst. Summer programs appeared to be largely attended by older children. More

Caucasians were included in the project, percentagewise, than were reported in the programs for 1968. The writer had no way of anticipating which agencies would select which teachers or which cultural or ethnic backgrounds to be used as their sample, since the agencies were selected at random from the *Directory of CAP Grantees*. Tables XXXVII, XXXVIII, XXXIX, XXXX, XXXXI, and XXXXII, Map I, and Appendix F all present information about the participants in the project. Table XXXVII compares descriptions of the children involved in the standardization of Form A and Form B of the Test with census data for 1968. Table XXXVIII compares 1968 data with project data to assess representativeness of the sample. Table XXXIX lists states by Office of Economic Opportunity Regions which provided sampling for the project to standardize Forms A and B of the Test in Full-Year and Summer Programs. Table XXXX lists the participants by OEO regions and states divided into Urban, Rural, and Total Programs. This table is of special interest since it indicates in which states were located the centers which participated not only in the standardization process but also in "In Depth" evaluation of the instruments, in early stages of development of the tests, and in sampling their total program with more than one class. Table XXXXI presents the participants in the research project by states for Form A, Rural and Urban, Full-Year and Summer. Table XXXXII presents the same information about the participants in Form B development.

Statistical Analysis of Returns for Form A of Readiness Test

The most significant findings of the research project have already been presented and analyzed. The data indicate that Form A and Form B of the Test are sufficiently valid and reliable for use in an evaluation program for disadvantaged pre-school children. It should never be recommended that only one test be used to assess readiness of children for any learning task. Taken into consideration along with other factors such as results from other standardized tests and the teacher's observations of social, emotional, and intellectual maturity of each child, the test results would afford some degree of assurance as to the child's readiness for participation in public school programs.

The tables which follow present information concerning the scores of the children who participated in the project. The most important data are presented in Tables VII and VIII for Form A of the Test and Tables XVI and XVII for Form B of the Test and the summaries included in the tables on the last page of each of the refined test forms presented in Appendixes G and H.

Table I presents a summary of test scores made by children enrolled in Full-Year Programs, organized by population, race, and sex. Numbers of children in each category are presented in class intervals. On Form A, very few children made scores lower than 10; 111 children made scores of 49 or 50; most of these scores were made by children aged 5 years 6 months and older. Later tables reveal that most of the highest scores were generally found among children aged 6-1 to 6-6.

It might be expected that children aged six years seven months and up would earn the highest scores; however, this was not the case. Many teachers noted that the oldest children were repeating Head Start, some of them already having been in Grade I. Ages of children ranged from two years eleven months in two different Day Care Centers up to nine years in one rural summer Head Start program; this oldest child had been in Grade I for two years and was still not making proper progress, according to his teacher's comments.

Table II presents a summary of test scores made by children enrolled in Summer Programs, organized by population (Rural and Urban and Total of Rural and Urban Combined) as well as by race and sex. Numbers of children in each category are presented in class intervals; these are the bases of statistical tables presented later. Only 17 summer children made scores of 49 or 50, although their average age appeared to be somewhat older. The comments made in the paragraph above relative to scores of older children in comparison with others enrolled in Full-Year Programs also apply to these children enrolled in Summer Programs.

Table III combines information presented for Full-Year and Summer Programs and gives the total figure of 6,662 which is used throughout the report as the number of participants in the project although over 1000 other answer sheets were returned and analyzed and many of them are included in the "in-depth" study of certain centers participating in the study but not included in the norming group and item analysis. The Tables in Appendix D present information concerning the "in-depth" evaluation conducted to ascertain representativeness of the sample. Table XXXIII presents information about children whose returns arrived too late for inclusion in other tables. These also support the findings as sufficiently representative. It is felt that further sampling would not affect any of the statistical tables or percentile ranks appreciably. (See Appendixes B and D).

Table IV gives a summary of Form A test scores for children of different ages enrolled in both Full-Year and Summer Programs. These scores are also arranged in class intervals for development of statistical tables presented later and for percentile ranks.

Table V summarizes Form A test scores for children of different ages enrolled in Urban and Rural Programs; these scores are used in statistical measurements tables and percentile ranks presented later.

Table VI presents Form A test scores for Boys and Girls of different ages enrolled in combined Full-Year and Summer Programs. It is interesting to note that a few more boys than girls participated in the standardization of Form A of the Readiness Test. If the scores are analyzed for different age levels, it is seen in Table VI that boys outnumber girls in the four oldest groups while girls outnumber boys in the three youngest groups. No significant differences were found between scores of boys and girls in the Total Columns but for some age levels, girls excelled; for other levels, boys excelled.

TABLE I

SUMMARY OF FORM A TEST SCORES MADE BY CHILDREN IN FULL-YEAR PROGRAM, 1969, BY POPULATION, RACE AND SEX

Scores: Class Intervals	URBAN CHILDREN									RURAL CHILDREN									ALL CHILDREN		
	Caucasian		Negro		Other		Total Urban			Caucasian		Negro		Other		Total Rural			TOTAL		
	B	G	B	G	B	G	B	G	Total	B	G	B	G	B	G	B	G	Total	B	G	Total
49-51	15	10	11	16	0	0	26	26	52	15	18	6	12	7	1	28	31	59	54	57	111
46-48	25	37	41	40	7	5	73	82	155	45	44	14	21	6	8	65	73	138	138	155	293
43-45	35	61	52	65	10	15	97	141	238	74	67	30	48	8	7	112	122	234	209	263	472
40-42	59	46	67	77	13	16	139	139	278	67	66	38	39	20	8	125	113	238	264	252	516
37-39	59	61	67	78	12	17	138	156	294	65	63	46	36	7	13	118	112	230	256	268	524
34-36	69	56	77	95	14	15	160	166	326	59	69	46	41	11	20	116	130	246	276	296	572
31-33	56	50	70	89	25	24	151	163	314	48	54	28	40	16	11	92	105	197	243	268	511
28-30	57	46	64	62	14	19	135	127	262	52	46	23	26	10	11	85	83	168	220	210	430
25-27	42	30	37	57	12	17	91	104	195	36	36	21	13	4	10	61	59	120	152	163	315
22-24	23	22	28	29	7	12	58	63	121	31	23	9	17	8	8	48	48	96	106	111	217
19-21	17	20	16	21	9	6	42	47	89	23	7	11	8	5	2	39	17	56	81	64	145
16-18	16	12	14	9	2	1	32	22	54	16	12	7	1	2	1	25	14	39	57	36	93
13-15	9	3	4	6	0	1	13	10	23	3	2	1	1	3	2	7	5	12	20	15	35
10-12	2	1	2	1	2	0	6	2	8	2	0	0	1	2	1	4	2	6	10	4	14
7- 9	1	2	1	0	0	0	2	2	4	0	1	0	0	1	1	1	2	3	3	4	7
4- 6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1- 3	0	0	1	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	1	0	1
TOTAL	485	457	552	645	127	148	1164	1250	2414	536	508	280	304	110	104	926	916	1842	2090	2166	4256

TABLE II

SUMMARY OF FORM A TEST SCORES MADE BY CHILDREN IN SUMMER PROGRAM, 1969, BY POPULATION, RACE AND SEX

Scores Class Interval	URBAN CHILDREN									RURAL CHILDREN									ALL CHILDREN		
	Caucasian		Negro		Other		Total Urban			Caucasian		Negro		Other		Total Rural			TOTAL		
	B	G	B	G	B	G	B	G	Total	B	G	B	G	B	G	B	G	Total	B	G	Total
49-51	1	3	0	2	1	2	2	7	9	4	3	0	0	0	1	4	4	8	6	11	17
46-48	10	12	1	3	3	4	14	19	33	17	24	2	3	3	3	22	20	52	36	49	85
43-45	19	20	11	4	3	5	33	29	62	46	36	4	3	4	3	54	42	96	87	71	158
40-42	24	26	8	12	12	11	44	49	93	54	53	3	0	4	6	61	59	120	105	108	213
37-39	21	25	20	22	14	9	55	56	111	58	53	6	5	5	5	69	63	132	124	119	243
34-36	30	26	23	32	13	10	66	68	134	64	63	13	5	2	5	79	73	152	145	141	286
31-33	39	30	25	27	18	18	82	75	157	64	69	11	9	6	5	81	83	164	163	158	321
28-30	28	32	27	29	18	18	73	79	152	38	51	14	8	8	7	60	66	126	133	145	278
25-27	40	23	17	32	20	6	77	61	138	51	42	14	11	7	6	72	59	131	149	120	269
22-24	20	15	25	27	11	4	56	46	102	31	28	10	10	12	6	53	44	97	109	90	199
19-21	20	17	19	12	13	6	52	35	87	33	19	6	7	7	6	46	32	78	98	67	165
16-18	11	9	16	6	7	5	34	20	54	15	9	7	2	5	3	27	14	41	61	34	95
13-15	11	5	6	5	0	2	17	12	29	6	4	2	3	3	1	11	8	19	28	20	48
10-12	2	3	2	4	1	0	5	7	12	7	2	1	0	1	0	9	2	11	14	9	23
7- 9	1	0	0	1	0	0	1	1	2	0	1	0	0	0	0	0	1	1	1	2	3
4- 6	0	1	1	0	0	0	1	1	2	0	0	0	0	0	0	0	0	0	1	1	2
1- 3	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	1	1	0	1
TOTAL	277	247	201	218	134	100	612	565	1177	489	457	93	66	67	57	649	580	1229	1261	1145	2406

TABLE III
SUMMARY OF FORM A TEST SCORES MADE BY CHILDREN IN FULL-YEAR AND SUMMER PROGRAMS, 1969, BY POPULATION, RACE AND SEX

Scores: Class Interval	URBAN CHILDREN									RURAL CHILDREN									ALL CHILDREN		
	Caucasian		Negro		Other		Total Urban			Caucasian		Negro		Other		Total Rural			Total		
	B	G	B	G	B	G	B	G	TOTAL	B	G	B	G	B	G	B	G	TOTAL	B	G	TOTAL
49-51	16	13	11	18	1	2	28	33	61	19	21	6	12	7	2	32	35	67	60	68	128
46-48	35	49	42	43	10	9	87	101	188	62	68	16	24	9	11	87	103	190	174	204	378
43-45	54	81	63	69	13	20	130	170	300	120	103	34	51	12	10	166	164	330	296	334	630
40-42	83	72	75	89	25	27	183	188	371	121	119	41	39	24	14	186	172	358	369	360	729
37-39	80	86	87	100	26	26	193	212	405	123	116	52	41	12	18	187	175	362	380	387	767
34-36	99	82	100	127	27	25	226	234	460	123	132	59	46	13	25	195	203	398	421	437	858
31-33	95	80	95	116	43	42	233	238	471	112	123	39	49	22	16	173	188	361	406	426	832
28-30	85	78	91	91	32	37	208	206	414	90	97	37	34	18	18	145	149	294	353	355	708
25-27	82	53	54	89	32	23	168	165	333	87	78	35	24	11	16	133	118	251	301	283	584
22-24	43	37	53	56	18	16	114	109	223	62	51	19	27	20	14	101	92	193	215	201	416
19-21	37	37	35	33	22	12	94	82	176	56	26	17	15	12	8	85	49	134	179	131	310
16-18	27	21	30	15	9	6	66	42	108	31	21	14	3	7	4	52	28	80	118	70	188
13-15	20	8	10	11	0	3	30	22	52	9	6	3	4	6	3	18	13	31	48	35	83
10-12	4	4	4	5	3	0	11	9	20	9	2	1	1	3	1	13	4	17	24	13	37
7-9	2	2	1	1	0	0	3	3	6	0	2	0	0	1	1	1	3	4	4	6	10
4-6	0	1	1	0	0	0	1	1	2	0	0	0	0	0	0	0	0	0	1	1	2
1-3	0	0	1	0	0	0	1	0	1	1	0	0	0	0	0	1	0	1	2	0	2
TOTAL	762	704	753	863	261	248	1776	1815	3591	1025	965	373	359	177	161	1575	1496	3071	3351	3311	6662

TABLE IV

SUMMARY OF FORM A TEST SCORES FOR CHILDREN OF DIFFERENT AGES ENROLLED IN FULL-YEAR AND SUMMER PROGRAMS

Scores: Class Interval	AGES																
	6-7 up		6-1:6-6		5-7:6-0		5-1:5-6		4-7:5-0		4-1:4-6		4-0 down		TOTAL		
	F-Y	Sum.	F-Y	Sum.	F-Y	Sum.	F-Y	Sum.	F-Y	Sum.	F-Y	Sum.	F-Y	Sum.	F-Y	Sum.	Total
49-51	10	5	46	8	29	3	22	1	3	0	1	0	0	0	111	17	128
46-48	9	21	110	29	93	21	61	8	18	5	2	1	0	0	293	85	378
43-45	18	28	129	53	136	46	120	18	57	11	11	2	1	0	472	158	630
40-42	15	42	132	83	143	57	150	22	64	9	11	0	1	0	516	213	729
37-39	14	33	106	79	143	77	157	32	87	21	12	1	5	0	524	243	767
34-36	20	44	104	86	136	96	159	37	117	21	30	2	6	0	572	286	858
31-33	12	42	78	91	122	89	146	64	122	32	23	2	8	1	511	321	832
28-30	12	27	36	63	89	91	134	56	126	40	28	1	5	0	430	278	708
25-27	7	18	29	73	53	75	82	53	108	45	25	4	11	1	315	269	584
22-24	4	16	18	32	33	54	63	45	59	45	33	4	7	3	217	199	416
19-21	1	6	10	20	25	50	44	41	36	44	22	2	7	2	145	165	310
16-18	1	8	9	14	6	19	23	27	27	22	21	3	6	2	93	95	188
13-15	0	2	2	0	3	16	12	13	12	15	5	1	1	1	35	48	83
10-12	1	0	0	2	0	7	5	3	4	9	4	1	0	1	14	23	37
7- 9	0	0	0	0	1	1	0	1	1	1	2	0	3	0	7	3	10
4- 6	0	0	0	0	1	0	0	0	0	2	0	0	0	0	1	2	3
1- 3	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	1
TOTAL	124	292	809	634	1013	702	1178	421	841	322	230	24	61	11	4256	2406	6662

TABLE V

SUMMARY OF FORM A TEST SCORES FOR CHILDREN OF DIFFERENT AGES ENROLLED IN URBAN AND RURAL PROGRAMS

SCORES: Class Interval	AGES																
	6-7 up		6-1:6-6		5-7:6-0		5-1:5-6		4-7:5-0		4-1:4-6		4-0 down		TOTAL		
	Urb.	Rur.	Urb.	Rur.	Urb.	Rur	Urb.	Rur	Urb.	Rur.	Urb.	Rur.	Urb.	Rur.	Urb.	Rur.	Total
49-51	7	8	20	34	15	17	16	7	2	1	1	0	0	0	61	67	128
46-48	13	17	65	74	55	59	36	33	16	7	3	0	0	0	188	190	378
43-45	16	30	77	105	77	105	78	60	44	24	8	5	0	1	300	330	630
40-42	22	35	100	115	88	112	113	59	41	32	7	4	0	1	371	358	729
37-39	20	27	79	106	103	117	117	72	75	33	10	3	1	4	405	362	767
34-36	26	38	80	110	130	102	120	76	84	54	20	12	0	6	460	398	858
31-33	27	27	71	98	101	110	140	70	110	44	19	6	3	6	471	361	832
28-30	13	26	44	55	100	80	124	66	112	54	19	10	2	3	414	294	708
25-27	7	18	43	59	69	59	91	44	97	56	21	8	5	7	333	251	584
22-24	3	17	14	36	43	44	72	36	63	41	24	13	4	6	223	193	416
19-21	4	3	5	25	43	32	49	36	54	26	18	6	3	6	176	134	310
16-18	5	4	8	15	12	13	28	22	33	16	18	6	4	4	108	80	188
13-15	2	0	0	2	11	8	19	6	17	10	2	4	1	1	52	31	83
10-12	0	1	1	1	0	7	6	2	10	3	2	3	1	0	20	17	37
7-9	0	0	0	0	1	1	1	0	2	0	1	1	1	2	6	4	10
4-6	0	0	0	0	1	0	0	0	2	0	0	0	0	0	3	0	3
1-3	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	1
TOTAL	165	251	607	836	849	866	1010	589	762	401	173	81	25	47	3591	3071	6662

TABLE VI

SUMMARY OF FORM A TEST SCORES FOR BOYS AND GIRLS OF DIFFERENT AGES ENROLLED IN FULL-YEAR AND SUMMER PROGRAMS

SCORES: Class Interval	AGES																
	6-7 up		6-1:6-6		5-7:6-0		5-1:5-6		4-7:5-0		4-1:4-6		4-0 down		TOTAL		
	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Total
49-51	9	6	23	31	17	15	7	16	0	3	1	0	0	0	57	71	128
46-48	15	15	62	77	51	63	39	30	8	15	1	2	0	0	176	202	378
43-45	23	23	88	94	86	96	66	72	31	37	4	9	0	1	298	332	630
40-42	29	28	108	107	110	90	82	90	39	34	2	9	0	1	371	358	729
37-39	25	22	92	93	109	111	103	86	45	63	5	8	1	0	382	385	767
34-36	40	24	100	90	110	122	94	102	66	72	10	22	3	2	420	438	858
31-33	34	20	90	79	96	115	104	106	70	84	8	17	0	6	406	426	832
28-30	22	17	55	44	86	94	108	82	76	90	9	20	4	5	356	352	708
25-27	14	11	53	49	67	61	66	69	80	73	17	12	0	5	301	283	584
22-24	6	14	30	20	45	42	58	50	53	51	17	20	4	8	215	201	416
19-21	6	1	21	9	45	30	45	40	35	45	16	8	6	4	175	135	310
16-18	6	3	11	12	18	7	32	18	35	14	12	12	7	2	117	71	188
13-15	2	0	0	2	13	6	16	9	12	15	3	3	3	5	48	35	83
10-12	0	1	1	1	5	2	6	2	7	6	5	0	2	0	24	13	37
7- 9	0	0	0	0	0	2	0	1	2	0	0	2	0	1	2	8	10
4- 6	0	0	0	0	1	0	0	0	1	1	0	0	0	3	2	1	3
1- 3	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	1
TOTAL	231	185	735	708	859	856	826	773	560	603	110	144	30	42	3351	3311	6662

Table VII divides the children who participated in the standardization of Form A into age groups and gives their percentile ranks by age. These figures combine Full-Year and Summer Programs. At one time it seemed advantageous to prepare separate norms for the two groupsl later analysis revealed that ages of children were more important than whether they were enrolled in Full-Year or Summer Programs. A comparison of these percentile ranks with the statistical measurements presented in Table VIII reveals interesting data. The highest scores were made by children in the age group described as 6 years one month to six years six months. Scores of children aged 4 years and under were surprisingly high. Table VIII indicates that only 72 children of the 6662 involved in the standardization of Form A fell below the age of four years. Two of these were only two years eleven months of age. Four hundred sixteen children involved in this study were six years seven months or older, the oldest child being nine years of age. The largest number of children 1715, fell within the age interval identified as 5 years 7 months to 6 years. The highest score made by a child in the age group 4 years down was 44. In all of the other age groups at least one child made a score of 50 points. Twenty children in the group identified as having the highest scores of all children made scores of 50 points. Surprisingly one of the lowest scores, 1 point, was also made by a child in this same age division.

The number of children from whose scores the percentile ranks were developed for the age group 6-7 up was 416; the number in the age group 6-1 to 6-6 was 1443; the number in the age group 5-7 to 6-0 was 1715; the number in the age group 5-1 to 5-6 was 1599; the number in the age group 4-7 to 5-0 was 1163; the number in the age group 4-1 to 4-6 was 254; and the number in the age group 4-0 down was only 72.

It is recommended that workers with disadvantaged children who wish to administer Form A to their children should request a copy of Table VII and Table VIII in addition to the summary of these percentile norms and statistical measurements presented in Table A on the last page of Appendix G, which consists of the test booklet, answer sheet, and scoring stencil for Form A.

Table IX presents the detailed item analysis for Form A of the Test from which was developed the refined form presented in Appendix G of this report. The refinement came from rearrangement and reorganization of items based on increasing difficulty of the items in each of the four sub-tests. The items were decreased in size so that more could be printed on each page; in this way it was possible to give specific directions for administration of each sub-test in English, French, and Spanish, as well as to present one example for each subtest to enable the test administrator to ascertain whether the child understands exactly what is expected of him before actually beginning each sub-test. The translations into French and English and the inclusion of examples for each sub-test resulted from recommendations made by workers in the field. Several other improvements in specific decoys also were suggested by teachers and Head Start and Day Care Directors who administered the test.

TABLE VII

FORM A SCORES AND PERCENTILE RANKS FOR CHILDREN OF DIFFERENT AGES ENROLLED IN FULL-YEAR AND SUMMER PROGRAMS

AGES:	6-7 up	6-1:6-6	5-7:6-0	5-1:5-6	4-7:5-0	4-1:4-6	4-0 down	TOTAL
SCORE	%ile r.	%ile r.	%ile r.	%ile r.	%ile r.	%ile r.	%ile r.	%ile r.
50	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.99
49	98.8	98.6	99.2	99.6	99.8	99.6	99.9	99.30
48	96.4	96.3	98.1	98.6	99.7	99.6	99.9	98.08
47	94.3	93.6	96.6	97.7	99.4	99.2	99.9	96.68
46	91.8	90.8	94.6	96.0	98.9	99.2	99.9	94.93
45	89.2	86.6	91.5	94.2	97.8	98.4	99.9	92.41
44	84.6	82.8	88.7	91.6	96.5	98.4	99.9	89.72
43	81.5	78.6	85.3	88.7	93.9	96.5	98.6	86.51
42	78.1	74.0	80.9	85.6	92.0	93.3	98.6	82.96
41	73.6	69.3	77.8	82.5	89.8	92.1	98.6	79.69
40	69.3	63.9	73.9	79.2	87.9	91.3	98.6	76.07
39	64.4	59.1	69.2	74.9	85.8	89.0	97.2	72.02
38	62.0	54.7	65.4	70.7	83.4	87.8	95.8	68.45
37	57.2	50.2	61.1	67.5	80.5	85.4	91.7	64.65
36	53.1	46.3	56.4	63.0	76.4	83.9	90.3	60.51
35	47.6	41.5	51.8	58.6	72.8	81.1	86.1	59.09
34	43.3	37.3	46.8	55.1	69.1	77.6	83.3	51.98
33	37.7	33.1	42.9	50.8	64.6	71.3	81.9	47.63
32	33.7	29.0	38.1	46.2	60.1	68.5	80.6	43.25
31	28.6	25.6	34.3	42.2	56.3	65.4	76.4	39.42
30	24.8	21.4	30.6	37.6	51.3	61.4	69.4	35.14
29	20.9	19.2	26.8	33.0	46.7	57.1	69.4	31.36
28	18.3	17.2	23.6	29.2	41.8	52.8	66.7	27.97
27	15.4	14.6	20.1	25.8	37.6	50.0	62.5	24.51
26	13.2	12.1	17.0	22.6	31.5	47.2	61.1	21.21
25	10.6	10.0	14.3	19.3	27.9	43.3	51.4	18.22
24	9.4	7.5	12.6	17.3	23.9	38.6	45.8	15.75
23	7.2	6.0	11.0	15.3	20.2	31.5	43.1	13.46
22	5.5	4.9	8.9	12.4	17.5	28.7	38.9	11.24
21	4.6	4.0	7.5	10.6	15.0	24.0	31.9	9.50
20	3.6	3.2	5.7	8.8	12.4	20.5	25.0	7.73
19	3.6	2.6	4.1	7.0	10.6	17.0	22.2	6.26
18	2.9	1.9	3.1	5.2	8.0	14.6	19.4	4.83
17	2.4	1.2	2.6	4.2	6.1	11.0	16.7	3.75
16	1.4	.8	2.2	2.9	4.7	7.1	13.9	2.78
15	.72	.4	1.7	2.1	3.8	5.1	8.3	2.01
14	.72	.3	1.2	1.4	2.7	3.9	6.9	1.46
13	.48	.3	.8	.94	1.8	3.5	5.6	1.04
12	.24	.2	.6	.56	1.5	2.8	5.6	.77
11	.24	.14	.4	.38	.95	2.0	5.6	.54
10	.24	.07	.4	.25	.77	1.6	5.6	.45
9		.07	.18	.06	.34	.79	4.2	.21
8		.07	.18	.06	.34	.39	1.4	.17
7		.07	.12		.26	.39		.12
6		.07	.06		.17			.06
5		.07	.06		.17			.06
4		.07	.06		.09			.05
3		.07	.06					.03
2		.07						.015
1		.07						.015
Number in group:	416	1443	1715	1599	1163	254	72	6662

TABLE VIII

MEAN, MEDIAN, Q_3, Q_1, Q, AND STANDARD DEVIATION FOR VARIOUS CLASSIFICATIONS OF CHILDREN AT DIFFERENT AGE LEVELS IN NORMING GROUP FOR FORM A OF READINESS TEST

Classification	Measurement	AGES							
		6-7 up	6-1:6-6	5-7:6-0	5-1:5-6	4-7:5-0	4-1:4-6	4-0 down	TOTAL
Boys	Mean	35.30	36.08	34.17	33.03	29.75	26.05	23.99	33.19
	Median	35.41	36.68	34.96	32.86	29.67	24.85	23.00	33.70
	Q_3	41.39	42.20	40.84	39.13	35.73	31.81	30.88	40.02
	Q_1	30.65	30.89	28.22	26.75	24.21	19.90	19.57	27.03
	Q	5.37	5.65	6.31	6.19	5.76	5.95	5.65	6.49
	Stan.Dev.	7.87	7.87	8.44	8.44	8.29	8.48	7.24	8.72
Girls	Mean	36.02	37.58	34.90	33.48	30.81	29.02	26.06	33.70
	Median	36.70	38.05	35.20	33.78	32.82	29.75	26.75	34.39
	Q_3	42.26	43.62	41.17	39.99	36.56	35.41	32.60	40.63
	Q_1	30.37	31.01	29.54	27.65	25.27	23.15	20.75	28.19
	Q	5.95	6.30	5.81	6.17	5.64	6.13	5.92	6.22
	Stan.Dev.	8.00	7.85	7.95	8.31	8.06	8.45	8.81	8.16
Urban	Mean	35.89	37.20	34.09	32.77	30.22	28.27	23.00	33.14
	Median	35.96	36.03	34.50	32.96	30.26	27.58	23.76	33.43
	Q_3	41.78	41.00	40.27	39.25	36.05	34.36	27.35	39.68
	Q_1	31.28	31.21	28.47	27.05	24.79	21.78	16.44	29.74
	Q	5.25	4.89	5.90	6.10	5.63	6.29	5.45	4.97
	Stan.Dev.	8.01	7.62	8.22	7.89	8.27	8.50	6.95	8.57
Rural	Mean	35.56	36.22	34.77	33.41	30.48	27.48	26.89	32.27
	Median	35.83	36.95	35.82	33.99	30.19	27.31	26.43	34.78
	Q_3	41.82	42.61	41.05	40.10	36.31	33.44	33.62	40.99
	Q_1	29.78	30.96	29.47	27.55	24.72	21.56	20.87	28.08
	Q	6.02	5.82	5.79	6.25	5.79	5.94	6.38	6.45
	Stan.Dev.	7.89	8.22	8.42	8.57	7.70	8.92	8.25	8.76
Full-Year	Mean	37.22	38.71	36.66	34.43	33.19	28.12	26.44	34.86
	Median	37.36	39.78	37.29	35.01	31.67	27.82	26.27	34.39
	Q_3	43.49	44.42	42.60	40.67	37.15	34.35	30.95	41.36
	Q_1	31.75	34.08	34.54	29.23	26.48	21.82	20.75	29.09
	Q	5.87	5.17	4.03	5.72	5.33	6.26	5.10	6.13
	Stan.Dev.	7.96	7.40	7.71	8.02	7.70	8.53	8.09	8.36
Summer	Mean	34.18	33.98	30.73	29.02	26.68	27.25	20.54	31.40
	Median	35.34	34.23	31.78	28.97	26.03	26.00	20.75	31.62
	Q_3	41.14	40.00	37.61	34.53	32.23	33.50	26.75	37.91
	Q_1	28.35	28.28	25.64	22.85	20.65	20.00	15.88	25.23
	Q	6.39	5.86	5.98	5.84	5.79	6.75	5.43	6.34
	Stan.Dev.	7.84	7.63	8.40	8.17	8.46	10.17	5.55	8.66

TABLE IX
READINESS TEST FOR DISADVANTAGED PRE-SCHOOL CHILDREN IN THE UNITED STATES (FORM A) ITEM ANALYSIS: DIFFICULTY AND DISCRIMINATION

Item Number	Percentage of Lower Q	Percentage of Upper Q	Index of Discrimination	Index of Average Difficulty	Rank of Difficulty	Remarks Concerning Difficulty and Discrimination
1	73.2	98.5	.253	.859	5	Reasonable discrimination; low average difficulty.
2	89.9	99.5	.096	.947	1	Slight discrimination; too easy. Keep for first item but change decoys to make more difficult.
3	24.1	87.7	.636	.559	16	High average discrimination and difficulty.
4	62.4	98.6	.362	.805	8	Low average discrimination; low average difficulty.
5	87.9	99.5	.116	.937	2	Not discriminating enough; too easy. Change decoys.
6	80.5	99.7	.192	.901	3	Not discriminating enough; too easy. Change decoys.
7	5.8	73.7	.679	.389	24	High discrimination; high average difficulty.
8	13.9	83.4	.695	.865	4	High discrimination; low average difficulty.
9	31.4	90.8	.594	.611	14	High average discrimination; average difficulty.
10	59.8	98.7	.389	.792	10	Low average discrimination; low average difficulty.
11	73.7	98.3	.246	.860	6	Reasonable discrimination; low average difficulty.
12	63.4	99.3	.359	.813	7	Low average discrimination; low average difficulty.
13	11.8	97.7	.859	.548	17	High discrimination; average difficulty.
14	46.0	96.1	.501	.710	13	Average discrimination; low average difficulty.
15	55.2	98.7	.435	.769	11	Average discrimination; low average difficulty.
16	24.3	96.8	.725	.605	15	High discrimination; average difficulty.
17	14.2	84.4	.702	.493	20	High discrimination; average difficulty.
18	21.3	79.0	.577	.502	19	High average discrimination; average difficulty.
19	15.8	79.5	.637	.477	21	High discrimination; average difficulty.
20	4.9	69.2	.643	.370	25	High discrimination; high average difficulty.
21	.4	88.0	.876	.442	23	Very high discrimination; average difficulty.
22	22.2	79.3	.571	.507	18	High average discrimination; average difficulty.
23	7.9	85.7	.778	.468	22	High discrimination; average difficulty.
24	68.2	81.7	.135	.749	12	Low discrimination; low average difficulty.
25	61.6	98.8	.372	.802	9	Low average discrimination; low average difficulty.

End of Part I: Similarities

(Continued)

READINESS TEST FOR DISADVANTAGED PRE-SCHOOL CHILDREN IN THE UNITED STATES (FORM A) ITEM ANALYSIS: DIFFICULTY AND DISCRIMINATION (CONTINUED)

Item Number	Percentage of Lower Q	Percentage of Upper Q	Index of Discrimination	Index of Average Difficulty	Rank of Difficulty	Remarks Concerning Difficulty and Discrimination
26	65.1	95.7	.306	.804	29	Low average discrimination; low average difficulty.
27	77.9	99.1	.212	.885	27	Low discrimination; low average difficulty.
28	62.3	96.2	.339	.792	30	Low average discrimination; low average difficulty.
29	73.3	97.6	.243	.854	28	Reasonable discrimination; low average difficulty.
30	83.4	99.5	.161	.915	26	Slight discrimination; too easy. Keep for first item in this sub-test but make smallest less obvious.
31	52.8	94.8	.420	.738	31	Average discrimination; low average difficulty.
32	12.3	73.7	.614	.430	39	High discrimination; average difficulty.
33	32.8	94.6	.618	.637	32	High discrimination; average difficulty.
34	32.8	76.4	.436	.546	36	Average discrimination; average difficulty.
35	24.0	87.9	.639	.560	34	High discrimination; average difficulty.
36	24.3	84.8	.605	.545	37	High average discrimination; average difficulty.
37	18.6	93.1	.745	.559	35	High discrimination; average difficulty.
38	26.0	87.8	.618	.569	33	High average discrimination; average difficulty.
39	22.1	83.3	.612	.527	38	High discrimination; average difficulty.
40	5.1	69.7	.646	.374	40	High discrimination; high average difficulty.
End of Part II: Differences						
41	48.1	96.9	.488	.725	41	Average discrimination; low average difficulty.
42	32.8	94.9	.622	.638	42	High discrimination; average difficulty.
43	26.0	90.6	.646	.583	43	High discrimination; average difficulty.
44	28.8	87.0	.583	.579	44	High average discrimination; average difficulty.
45	17.3	82.8	.655	.501	45	High discrimination; average difficulty.
End of Part III: Numerical Analogies						
46	77.0	98.8	.218	.879	46	Low discrimination; low average difficulty.
47	65.7	96.5	.308	.811	47	Low average discrimination; low average difficulty.
48	49.4	95.4	.460	.724	48	Average discrimination; low average difficulty.
49	7.8	61.0	.533	.344	50	Average discrimination; high average difficulty.
50	16.3	55.4	.391	.359	49	Low average discrimination; high average difficulty. Change items and decoys in all of Part IV so that they will be more in proportion.

End of Part IV: Missing Parts. End of Test Analysis: Difficulty and Discrimination. Test ready to refine.

Statistical Analysis of Returns for Form B of Readiness Test

Only five thousand two hundred one children were involved in the standardization of Form B of the test, as compared with six thousand six hundred sixty-two who contributed to the development of Form A. The difference lies in the fact that many full-year programs were closed by the time Form B reached them and they were unable to complete the testing project. In many other cases children who had been tested with Form A were later unavailable for testing with Form B. Over two hundred children were reported as having withdrawn from the program, moved to another community, gone on vacation, or been absent on test day because of illness and other reasons.

Identical tables were developed for Form B of the test as have been described in the preceding pages for Form A. Most of the tables indicate that Form B is somewhat easier than Form A; at least, children made somewhat higher average scores. Many of the test administrators felt that Form B was a better test because the art work was somewhat better. In the refined forms the art work is more uniform for the two forms of the test. Other participants suggested that their children might have made higher scores simply because they had had the experience of having been tested first with Form A. For most children, these tests were the first ones they had ever seen. They reacted positively in practically all instances, but teachers reported better results when the children approached the experience like a new game they were to play.

Table X presents a summary of test scores made by children enrolled only in Full-Year Programs divided by population (Urban, Rural, and combined Urban and Rural), and by race and sex. Numbers of children in each category are presented in class intervals; these are the bases of later statistical tables and are included in percentile norms. Very few children made scores lower than 10; 309 made scores of 49 or 50. Later tables divide the same children into other categories.

Table XI presents the same information for children enrolled in Summer Programs. Three thousand one hundred thirty-two children were involved during the winter term in comparison with 2139 enrolled in summer school. Of these children, 118 made scores of 49 or 50 on Form B as compared with only 17 children who had such scores on Form A.

Table XII combines the information presented in Tables X and XI showing together data for all of the children, Rural and Urban, Boys and Girls, Caucasian, Negro and Other Races. Boys outnumbered the girls in both Urban and Rural Centers but the margin was not great.

Table XIII shows scores by class intervals for children of different age levels enrolled in Full-Year and Summer Programs separately and for the combined total. These same total figures are to be found also in Table XVI which gives percentile ranks in a discrete series and in Table XVII which presents various statistical measurements.

TABLE X

SUMMARY OF FORM B TEST SCORES MADE BY CHILDREN IN FULL-YEAR PROGRAM, 1969, BY POPULATION, RACE, AND SEX

Scores: Class Interval	URBAN CHILDREN									RURAL CHILDREN									ALL CHILDREN Total		
	Caucasian		Negro		Other		Total Urban			Caucasian		Negro		Other		Total Rural					
	B	G	B	G	B	G	B	G	TOTAL	B	G	B	G	B	G	B	G	TOTAL	B	G	TOTAL
49-51	23	29	39	41	4	7	66	77	143	41	54	23	31	10	7	74	92	166	140	169	309
46-48	56	49	47	75	16	16	119	140	259	69	67	36	54	14	9	119	130	249	238	270	508
43-45	46	54	61	85	15	14	122	153	275	64	70	36	41	13	11	113	122	235	235	275	510
40-42	40	40	65	54	11	24	116	118	234	45	57	25	36	11	14	81	107	188	197	225	422
37-39	48	29	62	61	11	11	121	101	222	44	32	29	35	11	6	84	73	157	205	174	379
34-46	32	25	51	52	11	15	94	92	186	33	34	18	17	5	8	56	59	115	150	151	301
31-33	33	26	46	36	10	11	89	73	162	36	20	16	12	6	5	58	37	95	147	110	257
28-30	20	18	30	35	3	6	53	59	112	15	11	10	13	3	5	28	29	57	81	88	169
25-27	10	10	15	14	7	3	32	27	59	9	17	13	5	2	4	24	26	50	56	53	109
22-24	8	5	10	12	2	0	20	17	37	8	5	7	1	3	4	18	10	28	38	27	65
19-21	8	4	7	12	1	0	16	16	32	7	7	3	2	2	4	12	13	25	28	29	57
16-18	1	1	8	3	1	0	10	4	14	4	0	1	2	2	2	7	4	11	17	8	25
13-15	0	0	1	1	1	0	2	1	3	1	3	0	1	2	2	3	6	9	5	7	12
10-12	2	0	1	0	0	0	3	0	3	1	1	1	0	0	0	2	1	3	5	1	6
7-9	1	0	0	0	0	0	1	0	1	0	0	0	1	0	0	0	1	1	1	1	2
4-6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	0	1	1
1-3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	328	290	443	481	93	107	864	878	1742	377	378	218	251	84	82	679	711	1390	1543	1589	3132

TABLE XI

SUMMARY OF FORM B TEST SCORES MADE BY CHILDREN IN SUMMER PROGRAM, 1969, BY POPULATION, RACE, AND SEX

Scores: Class Intervals	URBAN CHILDREN									RURAL CHILDREN									ALL CHILDREN		
	Caucasian		Negro		Other		Total Urban			Caucasian		Negro		Other		Total Rural			TOTAL		
	B	G	B	G	B	G	B	G	Total	B	G	B	G	B	G	B	G	Total	B	G	Total
49-51	12	16	4	1	0	6	16	23	39	27	44	1	0	4	3	32	47	79	48	70	118
46-48	31	22	11	11	8	9	50	42	92	63	54	5	7	8	8	76	69	145	126	111	237
43-45	23	37	21	24	13	11	57	72	129	56	69	9	2	7	3	72	74	146	129	146	275
40-42	28	22	22	30	7	10	57	62	119	50	55	13	8	3	8	66	71	137	123	133	256
37-39	26	17	21	29	19	18	66	64	130	52	46	10	11	10	8	72	65	137	138	129	267
34-36	27	24	24	24	11	12	62	60	122	40	38	14	8	11	16	65	62	127	127	122	249
31-33	19	20	18	18	10	9	47	47	94	37	36	11	6	16	6	64	48	112	111	95	206
28-30	18	18	24	21	13	6	55	45	100	36	32	8	5	11	6	55	43	98	110	88	198
25-27	11	8	16	8	12	7	39	23	62	26	18	9	6	10	2	45	26	71	84	49	133
22-24	8	7	8	9	10	4	26	20	46	24	5	8	1	2	3	34	9	43	60	29	89
19-21	6	4	4	6	2	2	12	12	24	10	5	3	2	4	4	17	11	28	29	23	52
16-18	5	3	4	5	1	1	10	9	19	8	4	3	2	3	2	14	8	22	24	17	41
13-15	2	1	1	0	0	0	3	1	4	2	2	0	0	0	1	2	3	5	5	4	9
10-12	0	0	1	0	0	0	1	0	1	1	0	0	0	1	0	2	0	2	3	0	3
7- 9	0	0	0	0	1	0	1	0	1	0	1	0	0	0	0	0	1	1	1	1	2
4- 6	0	0	0	1	1	0	1	1	2	1	0	0	0	0	0	1	0	1	2	1	3
1- 3	0	0	0	1	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	1	1
TOTAL	216	199	179	188	108	95	503	482	985	433	409	94	58	90	70	617	537	1154	1120	1019	2139

TABLE XII

SUMMARY OF FORM B TEST SCORES MADE BY CHILDREN IN FULL-YEAR AND SUMMER PROGRAMS, 1969, BY POPULATION, RACE, AND SEX

Scores Class Inter-val	URBAN CHILDREN									RURAL CHILDREN									ALL CHILDREN		
	Caucasian		Negro		Other		Total Urban			Caucasian		Negro		Other		Total Rural			Total		
	B	G	B	G	B	G	B	G	TOTAL	B	G	B	G	B	G	B	G	TOTAL	B	G	TOTAL
49-51	35	45	43	42	4	13	82	100	182	68	98	24	31	14	10	106	139	245	188	239	427
46-48	87	71	58	86	24	25	169	182	351	132	121	41	61	22	17	195	199	394	364	381	745
43-45	69	91	82	109	28	25	179	225	404	120	139	45	43	20	14	185	196	381	364	421	785
40-42	68	62	87	84	18	34	173	180	353	95	112	38	44	14	22	147	178	325	320	358	678
37-39	74	46	83	90	30	29	187	165	352	96	78	39	46	21	14	156	138	294	343	303	646
34-36	59	49	75	76	22	27	156	152	308	73	72	32	25	16	24	121	121	242	277	273	550
31-33	52	46	64	54	20	20	136	120	256	73	56	27	18	22	11	122	85	207	258	205	463
28-30	38	36	54	56	16	12	103	104	212	51	43	18	18	14	11	83	72	155	191	176	367
25-57	21	18	31	22	19	10	71	50	121	35	35	22	11	12	6	69	52	121	140	102	242
22-24	16	12	18	21	12	4	46	37	83	32	10	15	2	5	7	52	19	71	98	56	154
19-21	14	8	11	18	3	2	28	28	56	17	12	6	4	6	8	29	24	53	57	52	109
16-18	6	4	12	8	2	1	20	13	33	12	4	4	4	5	4	21	12	33	41	25	66
13-15	2	1	2	1	1	0	5	2	7	3	5	0	1	2	3	5	9	14	10	11	21
10-12	2	0	2	0	0	0	4	0	4	2	1	1	0	1	0	4	1	5	8	1	9
7-9	1	0	0	0	1	0	2	0	2	0	1	0	1	0	0	0	2	2	2	2	4
4-6	0	0	0	1	1	0	1	1	2	1	0	0	0	0	1	1	1	2	2	2	4
1-3	0	0	0	1	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	1	1
TOTAL	544	489	622	669	201	202	1367	1360	2727	810	787	312	309	174	152	1296	1248	2544	2663	2608	5271

TABLE XIII

SUMMARY OF FORM B TEST SCORES FOR CHILDREN OF DIFFERENT AGES ENROLLED IN FULL-YEAR AND SUMMER PROGRAMS

SCORES:	AGES																
Class Inter-val	6-7 up		6-1:6-6		5-7:6-0		5-1:5-6		4-7:5-0		4-1:4-6		4-0 down		TOTAL		
	F-Y	Sum.	F-Y	Sum.	F-Y	Sum.	F-Y	Sum.	F-Y	Sum.	F-Y	Sum.	F-Y	Sum.	F-Y	Sum.	Total
49-51	20	38	124	47	95	23	53	8	13	1	4	1	0	0	309	118	427
46-48	33	57	154	91	149	59	115	24	53	4	3	2	1	0	508	237	745
43-45	24	43	134	108	147	86	131	25	64	13	9	0	1	0	510	275	785
40-42	16	43	89	88	135	76	103	32	62	16	16	0	1	1	422	256	678
37-39	12	34	70	88	90	78	109	42	75	23	22	1	1	1	379	267	646
34-36	10	28	43	54	71	85	77	50	77	28	15	4	8	0	301	249	550
31-33	5	22	34	60	62	54	69	36	57	30	20	4	10	0	257	206	463
28-30	0	24	14	42	38	54	52	35	49	38	9	5	7	0	169	198	367
25-27	0	10	11	29	17	28	21	32	42	30	11	4	7	0	109	133	242
22-24	1	5	7	8	10	28	18	25	18	19	9	4	2	0	65	89	154
19-21	2	5	3	8	9	10	18	14	14	10	9	4	2	1	57	52	109
16-18	0	4	2	2	4	13	8	8	3	9	5	4	3	1	25	41	66
13-15	1	1	0	1	1	2	4	2	1	2	4	0	1	1	12	9	21
10-12	0	0	0	1	0	0	3	0	2	2	1	0	0	0	6	3	9
7- 9	0	0	0	0	1	1	0	0	0	1	0	0	0	0	1	2	3
4- 6	0	0	0	1	0	0	0	0	0	3	1	0	1	0	2	4	6
1- 3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	124	314	685	628	829	597	781	333	530	229	138	33	45	5	3132	2139	5271

TABLE XIV
SUMMARY OF FORM B TEST SCORES FOR CHILDREN OF DIFFERENT AGES ENROLLED IN URBAN AND RURAL PROGRAMS

SCORES: Class Inter-val	AGES																
	6-7 up		6-1:6-6		5-7:6-0		5-1:5-6		4-7:5-0		4-1:4-6		4-0 down		TOTAL		
	Urb.	Rur.	Urb.	Rur.	Urb.	Rur.	Urb.	Rur.	Urb.	Rur.	Urb.	Rur.	Urb.	Rur.	Urb.	Rur.	Total
49-51	26	32	63	108	42	76	37	24	11	3	3	2	0	0	182	245	427
46-48	33	57	108	137	89	119	77	62	41	16	3	2	0	1	351	394	745
43-45	29	38	107	135	115	118	95	61	51	26	7	2	0	1	404	381	785
40-42	30	29	73	104	112	99	82	53	45	33	10	6	1	1	353	325	673
37-39	18	28	78	80	73	95	95	56	70	28	16	7	2	0	352	294	646
34-36	19	19	46	51	82	74	80	47	70	35	11	8	0	8	308	242	550
31-33	7	20	47	47	64	52	70	35	55	32	12	12	1	9	256	207	463
28-30	9	15	23	33	53	39	56	31	61	26	10	4	0	7	212	155	367
25-27	5	5	11	29	24	21	33	20	41	31	5	10	2	5	121	121	242
22-24	3	3	6	9	16	22	23	20	25	12	10	3	0	2	83	71	154
19-21	2	5	1	10	7	12	20	12	16	8	8	5	2	1	56	53	109
16-18	0	4	2	2	7	10	9	7	7	5	7	2	1	3	33	33	66
13-15	0	2	0	1	2	1	3	3	1	2	0	4	1	1	7	14	21
10-12	0	0	0	1	0	0	2	1	2	2	0	1	0	0	4	5	9
7- 9	0	0	0	0	0	2	0	0	1	0	0	0	0	0	1	2	3
4- 6	0	0	0	1	0	0	0	0	3	0	1	0	0	1	4	2	6
1- 3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	181	257	565	748	686	740	682	432	500	259	103	68	10	40	2727	2544	5271

Table XIV combines the class intervals into Urban and Rural children for each age level for the total 5271 children involved in the standardization and refinement of Form B. Although the total of 2727 urban children outnumbers the 2544 who were considered rural, rural children far out-numbered the urban ones in the three top age levels: 6-7 up, 6-1:6-6 and 5-7:6-0. Younger children were enrolled in urban centers, and more of these were Day-Care Centers which are rather scarce in most rural communities.

Table XV combines Full-Year and Summer, Rural and Urban Programs and shows scores by class intervals and different ages for Boys and Girls. Boys outnumbered girls only slightly in the total number of 5271; the only two age levels which contained more girls than boys were 4-7 to 5-0 and 4-1 to 4-6.

All of these tables are used for later statistical tables and are combined into percentile norms both in a discrete series in Table XVI and by class intervals in Table B on the last page of the Test Form B presented in Appendix H of this report.

Table XVI divides the children into age groups for Form B results and gives their percentile ranks by age. These figures combine both Full-Year and Summer Programs, Rural and Urban Children, and Boys and Girls of different ages. At one time it seemed advantageous to prepare separate norms for the various groups; later analysis of statistical tables revealed that ages of children were more important than whether they were rural or urban or were enrolled in Full-Year or Summer Programs. A comparison of the measurements presented in Table XVII reveals that the highest scores were made by the children in the age group 6-1 to 6-6, the same picture as was found from results for Form A of the Test. One four-year-old child made a score of 50 on Form B, compared to a high score for this age level of 44 points on Form A of the Test. While numbers of children in each age group were somewhat smaller than those for Form A, the largest number, 1426, was found in the age range 5-7 to 6-0, also the most populous group for Form A. More children made higher scores on Form B than on Form A; the greatest range of differences in scores were found in the age group 4-7 to 5-0.

Table XVIII presents the item analysis for Form B of the Test. As with Form A of the Test, the items were analyzed at three different times during this project, each resulting in rearrangement and reorganization of items similar to the final refined Form B of the Test presented in Appendix H of this report. In addition to changes in some of the decoys to make them less obvious and a decrease in size of items so that more could be presented on each page, a few changes resulted from comments made by participants in the project. Two of these suggestions which were inculcated into the refined test were the printing of directions in French and Spanish for non-English-speaking children and the inclusion of an example for each sub-test.

TAPLE XV

SUMMARY OF FORM B TEST SCORES FOR BOYS AND GIRLS OF DIFFERENT AGES ENROLLED IN FULL-YEAR AND SUMMER PROGRAMS

SCORES: Class Inter-val	AGES																
	6-7 up		6-1:6-6		5-7:6-0		5-1:5-6		4-7:5-0		4-1:4-6		4-0 down		TOTAL		
	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Total
49-51	23	35	83	88	47	71	28	33	6	8	1	4	0	0	188	239	427
46-48	53	37	115	130	112	96	66	73	17	40	1	4	0	1	364	381	745
43-45	28	39	107	135	113	120	78	78	34	43	4	5	0	1	364	421	785
40-42	30	29	86	91	99	112	69	66	32	46	3	13	1	1	320	358	678
37-39	25	21	93	65	82	86	86	65	48	50	7	16	2	0	343	303	646
34-36	16	22	52	45	83	73	58	69	55	50	9	10	4	4	277	273	550
31-33	16	11	51	43	65	51	59	46	51	36	12	12	4	6	258	205	463
28-30	10	14	34	22	44	48	49	38	43	44	8	6	3	4	191	176	367
25-27	7	3	26	14	33	12	29	24	33	39	7	8	5	2	140	102	242
22-24	6	0	10	5	28	10	26	17	19	18	7	6	2	0	98	56	154
19-21	5	2	7	4	7	12	14	18	17	7	7	6	0	3	57	52	109
16-18	4	0	2	2	9	8	12	4	9	3	3	6	2	2	41	25	66
13-15	0	2	1	0	2	1	2	4	2	1	2	2	1	1	10	11	21
10-12	0	0	1	0	0	0	3	0	3	1	1	0	0	0	8	1	9
7- 9	0	0	0	0	0	2	0	0	1	0	0	0	0	0	1	2	3
4- 6	0	0	1	0	0	0	0	0	2	1	0	1	0	1	3	3	6
1- 3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	223	215	669	644	724	702	579	535	372	387	72	99	24	26	2663	2608	5271

TABLE XVI

FORM B SCORES AND PERCENTILE RANKS FOR CHILDREN OF DIFFERENT AGES ENROLLED IN FULL-YEAR AND SUMMER PROGRAMS

AGES:	6-7 up	6-1:6-6	5-7:6-0	5-1:5-6	4-7:5-0	4-1:4-6	4-0 down	TOTAL
SCORE	%ile r.	%ile r.	%ile r.	%ile r.	%ile r.	%ile r.	%ile r.	%ile r.
50	99.8	99.8	99.9	99.9	99.9	99.9	99.9	99.99
49	93.3	93.4	96.0	97.7	99.2	98.8	99.9	96.12
48	86.6	86.7	92.0	94.5	98.2	97.1	99.9	91.87
47	79.1	80.1	87.0	90.7	95.4	95.9	99.9	87.07
46	70.9	74.4	81.9	86.0	93.4	95.3	98.0	82.48
45	63.8	68.1	77.1	82.0	90.6	94.2	98.0	77.74
44	59.7	62.5	72.2	77.6	86.3	93.0	98.0	73.09
43	53.6	55.3	66.4	73.1	84.1	90.6	96.0	67.86
42	48.6	49.7	60.8	68.0	80.5	88.9	96.0	62.85
41	47.0	44.2	55.8	64.2	77.3	84.8	94.0	58.12
40	42.2	40.5	49.8	60.0	74.0	83.0	92.0	54.01
39	37.4	36.3	46.0	55.9	70.2	79.5	82.0	49.99
38	33.5	31.6	42.0	51.0	66.9	76.6	88.0	45.64
37	30.3	27.4	37.9	46.6	62.6	70.2	88.0	41.58
36	26.9	24.2	34.2	42.4	57.3	66.1	88.0	37.73
35	25.1	21.1	31.0	37.8	52.3	63.7	84.0	34.11
34	20.8	19.2	26.2	33.8	47.3	60.2	78.0	30.26
33	18.2	16.9	23.3	31.0	43.5	55.0	72.0	27.30
32	17.6	14.8	19.9	28.0	38.7	49.7	68.0	24.30
31	13.0	12.2	18.0	25.2	36.2	46.2	60.0	21.61
30	12.1	9.7	15.1	21.5	32.0	40.9	52.0	18.52
29	11.6	7.8	12.5	19.2	26.4	36.8	46.0	15.76
28	9.1	6.4	10.8	16.9	23.8	35.1	42.0	13.81
27	6.6	5.5	8.7	13.9	20.6	32.8	38.0	11.55
26	5.5	4.5	7.4	12.1	17.4	31.6	32.0	9.98
25	4.6	3.1	6.5	10.4	13.8	27.5	28.0	8.25
24	4.3	2.4	5.5	9.0	11.1	24.0	24.0	6.96
23	3.9	1.9	4.3	7.6	9.1	17.5	22.0	5.67
22	3.4	1.6	3.6	6.2	7.4	16.4	20.0	4.74
21	3.0	1.3	2.5	5.1	6.2	16.4	20.0	4.04
20	2.3	1.0	2.2	3.9	4.3	13.5	18.0	3.09
19	1.8	.7	2.0	3.1	3.3	9.9	18.0	2.47
18	1.4	.5	1.5	2.2	3.0	8.8	14.0	1.97
17	1.1	.3	1.1	1.3	2.5	5.8	12.0	1.39
16	.7	.23	.63	.98	1.8	4.1	6.0	.95
15	.5	.15	.35	.81	1.5	3.6	6.0	.72
14			.28	.81	1.3	2.9	6.0	.61
13			.28	.45	1.1	1.8	6.0	.46
12			.14	.27	1.1	1.2	2.0	.32
11			.14	.18	.92	1.2	2.0	.29
10			.14	.09	.79	.59	2.0	.23
9			.14		.53	.59	2.0	.17
8			.07		.40		2.0	.11
7			.07		.40		2.0	.11
6					.40		2.0	.095
5					.132			.019
4					.132			.019
3					.132			.019
2								
1								
Number in group:	438	1313	1426	1114	759	171	50	5271

TABLE XVII

MEAN, MEDIAN, Q_3, Q_1, Q, AND STANDARD DEVIATION FOR VARIOUS CLASSIFICATIONS OF CHILDREN AT DIFFERENT AGE LEVELS IN NORMING GROUP FOR FORM B OF READINESS TEST

Classi- fication	Measure- ment	AGES							
		6-7 up	6-1:6-6	5-7:6-0	5-1:5-6	4-7:5-0	4-1:4-6	4-0 down	TOTAL
Boys	Mean	41.42	40.16	38.69	36.73	32.34	28.58	27.75	37.61
	Median	42.20	42.79	39.77	37.81	34.07	30.75	28.70	38.66
	Q3	46.65	47.87	44.92	43.55	39.25	35.83	34.25	44.48
	Q1	34.86	36.57	33.18	31.00	27.99	23.64	25.10	31.86
	Q	5.89	5.65	5.87	6.27	5.63	6.09	4.57	6.31
	Stan.Dev.	8.29	7.67	7.74	8.48	8.42	8.49	7.59	8.53
Girls	Mean	41.24	41.99	39.50	37.71	35.62	32.91	28.65	38.88
	Median	42.77	43.19	40.78	38.69	36.11	34.25	30.50	40.30
	Q3	46.98	46.81	45.29	44.33	42.13	39.79	33.88	45.24
	Q1	36.46	37.70	34.79	32.38	29.32	25.90	21.00	33.71
	Q	5.26	4.55	5.25	5.97	6.40	6.79	6.44	5.76
	Stan.Dev.	7.33	6.64	7.85	8.27	8.06	9.33	9.28	8.15
Urban	Mean	41.05	40.97	38.54	39.71	34.69	32.23	27.20	37.85
	Median	42.25	41.31	43.40	37.91	37.12	33.13	26.00	38.87
	Q3	46.75	46.33	44.42	43.73	41.03	36.98	37.25	44.39
	Q1	36.54	36.70	33.41	31.55	28.93	24.43	19.25	32.38
	Q	5.10	4.82	5.10	6.09	5.55	6.27	9.00	6.00
	Stan.Dev.	7.15	6.71	7.68	8.26	8.39	8.78	9.12	8.18
Rural	Mean	40.22	40.85	39.35	37.37	34.14	29.94	29.23	38.64
	Median	42.35	42.62	40.26	38.63	34.48	33.05	30.50	40.17
	Q3	46.80	46.76	45.74	43.42	40.70	37.36	33.88	46.68
	Q1	35.12	36.55	34.55	31.70	28.05	25.10	25.70	33.11
	Q	5.84	5.11	5.59	5.86	6.32	6.13	4.09	6.78
	Stan.Dev.	8.16	7.65	8.07	8.61	8.16	6.08	7.85	8.25
Full-Year	Mean	42.79	42.60	40.64	38.59	36.15	32.50	29.13	39.36
	Median	44.41	44.03	41.97	39.83	36.58	33.50	30.28	40.80
	Q3	47.50	47.89	46.25	44.87	42.38	39.16	33.78	45.70
	Q1	39.50	38.92	36.26	33.59	30.68	26.00	24.46	34.30
	Q	4.00	4.48	4.99	5.64	5.85	6.58	4.16	5.70
	Stan.Dev.	6.62	6.53	7.23	8.05	7.76	9.11	7.72	8.03
Summer	Mean	39.69	39.04	36.83	33.94	30.67	28.46	26.00	36.59
	Median	41.17	40.18	37.40	33.59	30.55	27.80	20.00	37.44
	Q3	46.37	44.97	43.15	40.04	36.47	33.33	38.75	43.54
	Q1	34.30	33.78	31.24	27.69	25.63	23.36	16.25	30.55
	Q	6.03	5.59	5.95	6.17	5.42	4.98	11.25	6.49
	Stan.Dev.	8.12	7.57	6.65	8.81	8.30	8.56	11.22	8.57

TABLE XVIII

READINESS TEST FOR DISADVANTAGED PRE-SCHOOL CHILDREN IN THE UNITED STATES (FORM B) ITEM ANALYSIS: DIFFICULTY AND DISCRIMINATION

Item Number	Percentage of Lower Q	Percentage of Upper Q	Index of Discrimination	Index of Average Difficulty	Rank of Difficulty	Remarks Concerning Difficulty and Discrimination
1	86.5	99.4	.129	.929	2	Slight discrimination; too easy. Change decoys.
2	67.5	99.0	.315	.833	9	Low average discrimination; low average difficulty.
3	81.7	99.5	.177	.906	4	Slight discrimination; too easy. Change star decoys.
4	62.1	97.5	.354	.798	11	Low average discrimination; low average difficulty.
5	50.7	83.3	.326	.670	21	Low average discrimination; average difficulty.
6	71.5	99.4	.279	.854	7	Reasonable discrimination; low average difficulty.
7	56.1	85.7	.296	.709	17	Reasonable discrimination; low average difficulty.
8	53.1	91.4	.383	.722	16	Low average discrimination; low average difficulty.
9	77.5	99.5	.220	.885	5	Low discrimination; low average difficulty.
10	54.7	82.1	.274	.684	20	Low average discrimination; average difficulty.
11	74.0	94.1	.201	.841	8	Low discrimination; low average difficulty.
12	55.3	93.7	.384	.745	14	Low average discrimination; low average difficulty.
13	93.9	99.4	.055	.966	1	Slight discrimination; too easy. Keep for first item but change decoys to make more difficult.
14	54.4	96.8	.424	.756	13	Average discrimination; low average difficulty.
15	43.8	93.8	.500	.688	18	High average discrimination; average difficulty.
16	72.6	99.2	.266	.859	6	Reasonable discrimination; low average difficulty.
17	34.8	79.5	.447	.571	25	Average discrimination; average difficulty.
18	44.8	77.4	.326	.611	23	Low average discrimination; average difficulty.
19	49.9	98.2	.483	.740	15	Average discrimination; low average difficulty.
20	82.2	99.2	.170	.907	3	Slight discrimination; too easy. Change decoys.
21	39.0	80.3	.413	.597	24	Average discrimination; average difficulty.
22	65.4	97.7	.323	.816	10	Low average discrimination; low average difficulty.
23	55.7	98.7	.430	.772	12	Average discrimination; low average difficulty.
24	50.5	87.0	.365	.687	19	Low average discrimination; average difficulty.
25	46.7	84.2	.375	.655	22	Low average discrimination; average difficulty.

End of Part I: Similarities

(Continued)

2

READINESS TEST FOR DISADVANTAGED PRE-SCHOOL CHILDREN IN THE UNITED STATES
(FORM B) ITEM ANALYSIS: DIFFICULTY AND DISCRIMINATION (CONTINUED)

Item Number	Percentage of Lower Q	Percentage of Upper Q	Index of Discrimination	Index of Average Difficulty	Rank of Difficulty	Remarks Concerning Difficulty and Discrimination
26	84.0	94.8	.108	.894	30	Slight discrimination; too easy. Change choices.
27	88.6	99.6	.110	.941	26	Slight discrimination; too easy. Change choices.
28	88.4	98.5	.101	.934	28	Slight discrimination; too easy. Change choices.
29	88.5	99.1	.106	.938	27	Slight discrimination; too easy. Change choices.
30	82.3	99.0	.107	.907	29	Slight discrimination; too easy. Change choices. Make largest less obvious in all items in sub-test.
31	58.8	97.4	.386	.781	31	Low average discrimination; low average difficulty.
32	55.3	94.0	.387	.747	32	Low average discrimination; low average difficulty.
33	43.6	91.4	.478	.675	34	Average discrimination; average difficulty.
34	27.7	87.7	.600	.571	38	High average discrimination; average difficulty.
35	37.4	89.2	.518	.633	36	Average discrimination; average difficulty.
36	30.7	92.6	.619	.616	37	High average discrimination; average difficulty.
37	40.4	95.9	.555	.682	33	Average discrimination; average difficulty.
38	37.7	92.2	.545	.649	35	Average discrimination; average difficulty.
39	24.4	74.4	.500	.494	39	High average discrimination; average difficulty.
40	22.3	57.1	.348	.397	40	Low average discrimination; high average difficulty.
End of Part II: Differences						
41	43.2	94.5	.513	.688	42	Average discrimination; average difficulty.
42	48.0	93.3	.453	.707	41	Average discrimination; low average difficulty.
43	32.9	86.6	.537	.598	44	Average discrimination; average difficulty.
44	26.9	79.7	.528	.533	45	Average discrimination; average difficulty.
45	39.1	90.3	.512	.647	43	Average discrimination; average difficulty.
End of Part III: Numerical Analogies						
46	64.1	94.7	.306	.794	46	Low average discrimination; low average difficulty.
47	62.9	93.9	.310	.784	47	Low average discrimination; low average difficulty.
48	46.9	79.9	.330	.634	50	Low average discrimination; average difficulty.
49	59.8	96.7	.369	.783	48	Low average discrimination; low average difficulty.
50	63.9	89.6	.257	.767	49	Reasonable discrimination; low average difficulty.

End of Part IV: Missing Parts. End of Test Analysis: Difficulty and Discrimination. Test ready to refine.

CONCLUSIONS AND RECOMMENDATIONS

Conclusions

The major objective of this research project was to develop a culture-fair, non-verbal individual readiness test for possible administration to both rural and urban disadvantaged pre-school children in the United States. Specific objectives included preparation of easily administered tests with adequate directions and instructions to insure uniform results with a minimum of time invested by teachers; preparation of norms in the form of percentile ranks for children of different chronological ages; preparation of equivalent forms of the test so that the first might be used to identify weaknesses early during the school year and the second used at the end of the year to assess the efficiency of the program provided for and the progress made by each child; preparation of the instruments for dissemination through the appropriate agency of the Unites States Office of Education; and making available refined instruments through careful item analysis which should improve the entire rationale of measurement and evaluation. It is felt that these objectives have been achieved.

Included with this report are Form A and Form B of the Walker Readiness Test with percentile ranks for each age level in intervals of six months, beginning with age six years, seven months and up and concluding with age four years and downward, sample answer sheets, and scoring stencils for each form of the test.

Many statistical tables are included in the report to show how validity and reliability of the instruments were established. Empirical validity of .675 was ascertained for Form A of the test, .633 for Form B. A slightly lower validity was obtained using only the few children in 54 centers who were administered standardized tests. The figures given above represent findings based on calculations for 5774 of the 6662 children chosen as the samples from 364 agencies for whom percentile ranks were computed for Form A and calculations for 4469 of the 5271 children chosen as the samples from 301 of the same agencies for whom percentile ranks were computed for Form B. Curricular validity is also claimed for the tests.

Reliability of Form A of the test was established at .869 for the 6662 children included in standardization of that instrument; reliability of .889 was ascertained for Form B of the test for the 5271 children included in its standardization procedures.

In depth evaluation of the instruments was completed in several rural and urban summer Head Start programs, where the tests were administered to all children enrolled. Statistical findings and calculations were not found to be appreciably different from those provided for the children used in the norming groups.

The tests may be easily administered by teachers or trained aides or volunteer workers; directions are clear and simple and are translated into both French and Spanish for greater uniformity of results and more validity for the norms presented with the instruments. Eight to 10 minutes should be sufficient time to administer each form of the test to one child; however, the tests are not to be timed since some children respond more slowly than others. The test items do not appear to discriminate against children from impoverished environments and thus may be described as relatively culture-fair.

Scoring can be done quickly and easily by placing the scoring stencil over the child's answer sheet and counting correct responses when all of the child's answers are recorded by the test administrator. During the research project, it was recommended that only the child's incorrect answers be recorded. For the average teacher, however, use of the scoring stencil and recording all of the child's answers appears to be the better method.

In addition to Tables A and B which appear on the back pages of the test booklets for Form A and Form B respectively, prospective users of the instruments may benefit from using Tables VII and VIII for Form A and Tables XVI and XVII for Form B. These tables present percentile ranks for each age level in a discrete series rather than in class intervals and the Mean, Median, Top Quartile, Bottom Quartile, Semi-Interquartile Range, and Standard Deviation for each age level divided into the following classifications: Boys, Girls, Urban Children, Rural Children, Children enrolled in Full-Year Programs and Children enrolled in Summer Programs. When these tables are consulted, the comparative score for each individual child can be found for whichever classifications are warranted.

This has been a very rewarding experience for the Project Director and it is hoped that the instruments may be used to help set up evaluation programs and subsequent remedial programs designed to help prepare each disadvantaged pre-school child for enrollment in public school programs.

Recommendations

It is recommended that some provision be made for possible feed-back from users of these instruments so that further statistical analysis and refinement might be achieved. It would be helpful if the instruments could be administered as they were originally designed to be used, Form A early in the school year and Form B at the end of the year. It is felt that real progress can be seen in this length of time. Since the time was somewhat limited between administrations of the two forms of the test during this project, it is hoped that results of using the instruments with proper spacing can be reported to those interested in further work and research with the instruments. A follow-up study is in order.

The instruments appear to be sufficiently valid, reliable, and usable to be offered to workers in the field. It is recommended that test booklets be prepared using the original plates for the items which will be presented with the Final Report for the Research Project; that the proper tables can be printed to accompany the test booklets if it is not possible to include them within the booklets themselves; that provisions be made for providing uniform answer sheets from the Government Printing Office, if possible; and that scoring stencils can be produced from heavy poster paper for distribution with the test booklets and answer sheets.

Even without a further research committment, the writer would be happy to receive results from further experimentation with the instruments and would volunteer to bring the percentile norms and other statistical tables designed to accompany the test booklets for maximum usage up to date, if users can be encouraged to share their answer sheets with her.

It is recommended that further efforts be made to find centers which administer other standardized tests to their disadvantaged pre-school children and conduct additional studies in correlations between results of the Readiness Tests herewith presented and results of such standardized tests as are available. During this project, scores on standardized tests were provided for only 769 children who were administered Form A of this test and for 677 who were administered Form B of the test. These numbers are too small to be considered significant.

If the instruments are used as designed to help each individual child rather than to label him early during his school career, they can result in improved educational practices and materials for disadvantaged pre-school children. If the instruments are used simply to decide which children are ready for entrance into public school programs and nothing is done to help overcome weaknesses in concepts thus revealed, then administration of the tests would be a pure waste of time.

If further research is attempted in this area, it is hoped that some effort can be made to include color charts and items for the children; this was part of the original plan but had to be abandoned because of problems involved in reproducing true colors. This would make the two instruments more expensive to reproduce, but children need to be tested for their knowledge of colors before they are enrolled in public school programs. If the items already included in the instruments could be reproduced in color, this would also enhance the items by providing greater motivation and interest on the part of young children.

If further research is conducted with these instruments, it is hoped that an effort can be made to secure cooperation from all of the states and regions involved so that each state will have sufficient returns to be considered representative. In this project, certain states returned a much larger proportion of their testing materials than did others. Since participation was on a voluntary basis and involved several hours of time for each center involved, failure to cooperate is understood in view of the fact that the findings and results of their children could not be made immediately available to them. Great appreciation is felt for the wholehearted cooperation which came from a great variety of sources.

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APPENDIX A

TABLE XIX

PRODUCT MOMENT COEFFICIENT OF CORRELATION AND SCATTERGRAM FOR 1605 URBAN CHILDREN ENROLLED IN FULL-YEAR HEAD START AND DAY CARE CENTERS, SHOWING RELATIONSHIP BETWEEN SCORES ON FORM A AND FORM B OF TEST

$$r_{xy} = \frac{N\Sigma dxdy - (\Sigma fxdx)\ (\Sigma fydy)}{\sqrt{N\Sigma fxdx^2 - (\Sigma fxdx)^2}\ \sqrt{N\Sigma fydy^2 - (\Sigma fydy)^2}}$$

$$= \frac{1605\ (129019) - (12,918)\ (14,939)}{\sqrt{1605\ (115,540) - (12,918)^2}\ \sqrt{1605\ (151,755) - (14,939)^2}}$$

$$= \frac{207,075,495 - 192,982,002}{\sqrt{185,441,700 - 166,874,724}\ \sqrt{243,566,775 - 223,173,721}}$$

$$= \frac{14,093,493}{(4308.94)\ (4515.87)} = \frac{14,093,493.00}{20,393,079.79} = .691$$

SCORES ON FORM B

To-tal.	2	17	27	47	82	108	172	189	220	206	213	163	121	38	1605
49-50				1		1	2	2	5	8	22	23	54	29	147
46-48							1	11	22	35	68	70	41	5	253
43-45					1	2	6	24	33	65	65	41	17	2	256
40-42					6	2	19	42	46	50	32	16	5	2	220
37-39				2	12	16	33	38	57	24	15	5	1		203
34-36			4	2	10	15	44	31	29	18	8	3	1		165
31-33		1	2	10	16	32	30	23	15	5	1	2	2		139
28-30	1	2	3	9	15	23	20	13	8		1	1			96
25-27		2	9	5	7	8	12	4	4		1	1			53
22-24		5	1	6	5	7	1	1				1			27
19-21	1	2	3	9	8	2	2		1	1					29
16-18		2	4	2	2										10
13-15			1	1			1								3
12-down		3					1								4
	12-down	13-15	16-18	19-21	22-24	25-27	28-30	31-33	34-36	37-39	40-42	43-45	46-48	49-50	Total

SCORES ON FORM A

TABLE XX

PRODUCT MOMENT COEFFICIENT OF CORRELATION AND SCATTERGRAM FOR 1302 RURAL CHILDREN ENROLLED IN FULL-YEAR HEAD START AND DAY CARE CENTERS SHOWING RELATIONSHIP BETWEEN SCORES ON FORM A AND FORM B OF TEST

$$r_{xy} = \frac{N\Sigma dxdy - (\Sigma fxdx)(\Sigma fydy)}{\sqrt{N\Sigma fxdx^2 - (\Sigma fxdx)^2}\ \sqrt{N\Sigma fydy^2 - (\Sigma fydy)^2}}$$

$$= \frac{1302\ (112065) - (10820)\ (12591)}{\sqrt{132.\ (99526) - (10820)^2}\ \sqrt{1302\ (131229) - (12591)^2}}$$

$$= \frac{9674010}{\sqrt{12510452}\ \sqrt{12326877}}$$

$$= \frac{9674101}{12418335.9997} \qquad = \frac{9674010}{12418336}$$

$$= .779$$

SCORES ON FORM B

To-tal	7	5	19	31	69	86	102	150	183	161	172	166	106	45	1302
49-50					1		1	1	2	6	21	31	55	36	154
46-48				1		1	3	6	19	31	53	66	73	7	230
43-45					2	3	8	17	44	43	49	46	6	1	219
40-42					1	4	14	35	53	37	31	11	2	1	189
37-39			1	2	6	15	15	41	25	20	11	11			147
34-36				2	14	12	27	17	18	10	5	1			106
31-33			1	7	12	16	15	18	11	7	2				89
28-30			2	4	10	10	7	8	5	5					51
25-27		2	5	4	10	9	6	4	3	1					44
22-24			1	3	7	8	3	1	3	1					27
19-21		1	3	6	4	6	2	1							23
16-18	1	1	3	2	2	2	2	1							12
13-15	5	1	2					1							9
12-down	1		1												2
	12-down	13-15	16-18	19-21	22-24	25-27	28-30	31-33	34-36	37-39	40-42	43-45	46-48	49-50	Total

SCORES ON FORM A

TABLE XXI

PRODUCT MOMENT COEFFICIENT OF CORRELATION AND SCATTERGRAM FOR 885 URBAN CHILDREN ENROLLED IN SUMMER HEAD START CENTERS, SHOWING RELATIONSHIP BETWEEN SCORES ON FORM A AND FORM B OF TEST

$$r_{xy} = \frac{N\Sigma dxdy - (\Sigma fxdx)(\Sigma fydy)}{\sqrt{N\Sigma fxdx^2 - (\Sigma fxdx)^2}\ \sqrt{N\Sigma fydy^2 - (\Sigma fydy)^2}}$$

$$= \frac{885\ (53920) - (5872)\ (7298)}{\sqrt{885\ (46300) - (5872)^2}\ \sqrt{885\ (67648) - 7298)^2}}$$

$$= \frac{47719200 - 42853856}{\sqrt{6495116}\ \sqrt{6607676}} = \frac{4865344}{(2548.55)\ (2570.54)}$$

$$= \frac{4865344}{6551149.717} = .742$$

SCORES ON FORM B

To-tal	14	21	41	63	76	93	115	106	102	93	78	55	23	5	885
49-50							1	1	1	5	9	7	8	1	33
46-48								4	10	17	20	23	9	4	87
43-45				2	1	3	7	14	21	22	26	16			112
40-42					3	11	16	18	22	22	16	4	2		114
37-39				8	2	13	18	19	20	12	2	2	2		98
34-36		1	3	4	9	19	24	21	12	6	2	2	2		105
31-33	1	1		11	12	18	18	14	4	4	2				85
28-30		3	13	13	15	12	20	11	4	1	1	1			94
25-27	1	4	6	9	11	10	7	2	4	3					57
22-24	2	4	6	9	14	3		1							39
19-21	1	3	4	3	7	2	2		3	1					26
16-18	5	3	6	3	2	2	2		1						24
13-15		2	1	1				1							5
12-down	4		2												6
	12-down	13-15	16-18	19-21	22-24	25-27	28-30	31-33	34-36	37-39	40-42	43-45	46-48	49-50	Total

SCORES ON FORM A

TABLE XXII

PRODUCT MOMENT COEFFICIENT OF CORRELATION AND SCATTERGRAM FOR 671 RURAL CHILDREN ENROLLED IN SUMMER HEAD START CENTERS, SHOWING RELATIONSHIP BETWEEN SCORES ON FORM A AND FORM B OF TEST

$$r_{xy} = \frac{N\Sigma dxdy - (\Sigma fxdx)(\Sigma fydy)}{\sqrt{N\Sigma fxdx^2 - (\Sigma fxdx)^2}\sqrt{N\Sigma fydy^2 - (\Sigma fydy)^2}}$$

$$= \frac{671\ (40455) - (4375)\ (5598)}{\sqrt{671\ (33693) - (4375)^2}\sqrt{671\ (52204) - (5598)^2}}$$

$$= \frac{27145305 - 24491250}{\sqrt{22608003 - 19140625}\sqrt{35028884 - 31337604}}$$

$$= \frac{2654055}{\sqrt{3467378}\sqrt{3691280}} = \frac{2654055}{(1862.09)\ (1921.53)}$$

$$= \frac{2654055}{3578061.797} = .741$$

SCORES ON FORM B

Total	7	13	26	49	67	92	81	96	74	60	48	35	19	4	671
49-50		1		1	1			1		5	5	10	12	4	40
46-48						1	1	3	8	12	17	16	4		62
43-45						5	7	12	9	15	9	8	3		68
40-42				1	1	5	17	14	25	13	12	1			89
37-39				2	5	10	11	22	16	9	3				78
34-36		1		8	8	23	15	16	9	3	2				85
31-33		2	5	7	11	22	11	11	2	1					72
28-30			5	5	20	13	7	8	3	1					62
25-27		2	5	5	11	10	8	5							46
22-24	3	2	4	11	7	3	1	1	1	1					34
19-21			3	3	1		2	2	1						12
16-18	2	3	3	5	2		1								16
13-15	1	1	1		1										4
12-down	1	1		1											3
	12-down	13-15	16-18	19-21	22-24	25-27	28-30	31-33	34-36	37-39	40-42	43-45	46-48	49-50	Total

SCORES ON FORM A

TABLE XXIII

PRODUCT MOMENT COEFFICIENT OF CORRELATION AND SCATTERGRAM FOR 385 RURAL CHILDREN ENROLLED IN SUMMER HEAD START PROGRAMS IN SELECTED SOUTHWEST, MID-ATLANTIC, AND NORTH CENTRAL CENTERS, SHOWING RELATIONSHIP BETWEEN SCORES ON FORM A AND FORM B OF TEST (IN DEPTH)

$$r_{xy} = \frac{N\Sigma dxdy - (\Sigma fxdx)\ (\Sigma fydy)}{\sqrt{N\Sigma fxdx^2 - (\Sigma fxdx)^2}\cdot\sqrt{N\Sigma fydy^2 - (\Sigma fydy)^2}}$$

$$= \frac{385\ (30207) - (3008)\ (3572)}{\sqrt{385\ (26366) - (3008)^2}\cdot\sqrt{385\ (36266) - (3572)^2}}$$

$$= \frac{11{,}629{,}695 \quad - 10{,}744{,}576}{\sqrt{10{,}150{,}910 - 9{,}048{,}064}\ \sqrt{13{,}962{,}410 - 12{,}759{,}184}}$$

$$= \frac{885{,}119}{\sqrt{1{,}102{,}846}\cdot\sqrt{1{,}203{,}226}} = \frac{885{,}119}{115{,}194.5072} = .76$$

SCORES ON FORM B

Total	3	1	6	19	20	31	41	49	47	46	54	36	28	4	385
49-50									1	5	5	10	15	3	39
46-48						1	1	4	4	9	21	11	10	1	62
43-45						3	4	11	9	10	10	12	3		62
40-42						1	2	4	10	9	11				37
37-39				2	2	4	9	11	17	3	3	2			53
34-36				1	3	5	7	7	4	6	2	1			36
31-33				4	4	7	5	5	1	2	2				30
28-30		1			3	7	4	6		1					22
25-27			2	6	3	1	5			1					18
22-24				1	2	2	2								7
19-21	1		2	4	2		2	1							12
16-18			2	1	1										4
13-15															0
12-down	2								1						3
	12-down	13-15	16-18	19-21	22-24	25-27	28-30	31-33	34-36	37-39	40-42	43-45	46-48	49-50	Total

SCORES ON FORM A

TABLE XXIV

PRODUCT MOMENT COEFFICIENT OF CORRELATION AND SCATTERGRAM FOR 537 URBAN CHILDREN ENROLLED IN SUMMER HEAD START PROGRAMS IN SELECTED CENTERS IN THE MID-ATLANTIC, SOUTHWEST, AND WESTERN REGIONS,SHOWING IN DEPTH RELATIONSHIP BETWEEN SCORES ON FORM A AND FORM B OF TEST

$$r_{xy} = \frac{N\Sigma dxdy - (\Sigma fxdx)(\Sigma fydy)}{\sqrt{N\Sigma fxdx^2 - (\Sigma fxdx)^2}\sqrt{N\Sigma fydy^2 - (\Sigma fydy)^2}}$$

$$= \frac{537\,(37584) - (3780)\,(5023)}{\sqrt{537\,(29570) - (3780)^2}\sqrt{537\,(50053) - (5023)^2}}$$

$$= \frac{20182608 - 18986940}{\sqrt{15879090 - 14288400}\sqrt{26878461 - 25230529}}$$

$$= \frac{1195668}{\sqrt{1590690}\sqrt{1647932}} = \frac{1195668}{(1261.225)(1283.72)}$$

$$= \frac{1195668}{1619002.44} = .738$$

SCORES ON FORM B

To-tal	1	8	14	28	32	66	75	82	71	61	41	31	21	6	537
49-50							1	2	1	3	3	5	12	3	30
46-48	1			2	2	3	3	11	12	13	13	12	7		79
43-45				1	2	4	12	18	19	17	9	6	1	1	90
40-42			1	1	4	11	16	11	17	9	9	2	1		82
37-39			1	2	6	9	18	19	10	13	2	2		1	83
34-36			1	1	2	17	10	10	8	4	4	2		1	60
31-33		2	1	7	10	9	7	7	3	1	1	1			49
28-30		1	2	5	2	6	4								20
25-27		2	3	5	3	4	4	1	1	1		1			25
22-24			1	3	1	3		2							10
19-21		1	2					1							4
16-18		2													2
13-15			2	1											3
12-down															
	12-down	13-15	16-18	19-21	22-24	25-27	28-30	31-33	34-36	37-39	40-42	43-45	46-48	49-50	Total

SCORES ON FORM A

APPENDIX B

TABLE XXV

RANK COEFFICIENT OF CORRELATION BETWEEN TEACHERS' RANKS OF CHILDREN AND CHILDREN'S SCORES ON FORM A AND FORM B OF TEST AND BETWEEN FORM A AND FORM B TEST SCORES

Coded Full-Year Urban Programs	Form A-Teacher's Ranking			Form B-Teacher's Ranking			Form A - Form B		
	Number Children	Corre-lation	Weighted Value	Number Children	Corre-lation	Weighted Value	Number Children	Corre-lation	Weighted Value
1	10	.368	3.680	4	.250	1.000	5	.438	2.190
2	10	.803	8.030	10	.576	5.760	10	.524	5.240
3	10	.746	7.460	8	.661	5.288	8	.959	7.672
4	16	.663	10.608	16	.855	13.680	16	.569	9.104
5	16	.475	7.600	12	.844	10.128	12	.771	9.252
6	14	.778	10.892	15	.740	11.100	14	.624	8.736
7	14	.780	10.920	14	.764	10.696	14	.875	12.250
8	14	.856	11.984	14	.627	8.778	14	.766	10.724
9	18	.771	13.878	17	.713	12.121	17	.821	13.957
10	7	.813	5.691	7	.402	2.814	7	.411	2.877
11	7	.893	6.251	7	.678	4.746	7	.482	3.374
12	6	.886	5.316	6	.086	.516	6	-.085	-0.510
13	17	.827	14.059	14	.685	9.590	14	.696	9.744
14	13	.829	10.777	13	.782	10.166	13	.327	4.251
15	18	-.433	-7.794	16	.415	6.640	17	.043	.731
16	16	.924	14.784	15	.731	10.965	15	.875	13.125
17	(NO TEACHER RATING)						18	.355	6.390
18	19	.746	14.174	18	.634	11.412	18	.677	12.186
19	20	.424	8.480	20	.789	15.780	20	.660	13.200
20	8	.810	6.480	10	.921	9.210	8	.869	6.952
21	20	.926	18.520	20	.913	18.260	20	.854	17.080
22	14	.643	9.002	15	.615	9.225	14	.748	10.472
23	20	.713	14.260	18	.641	11.538	18	.447	8.046
24	4	.350	1.400	5	.575	2.875	4	.600	2.400
25	16	.344	5.504	14	.615	8.610	14	.316	4.424
26	20	.484	9.680	15	.807	12.105	16	.724	11.584
27	20	.691	13.820	16	.339	5.424	16	.555	8.880

(continued)

RANK COEFFICIENT OF CORRELATION BETWEEN TEACHERS' RANKS OF CHILDREN AND CHILDREN'S SCORES ON FORM A AND FORM B OF TEST AND BETWEEN FORM A AND FORM B TEST SCORES (CONTINUED)

Coded Full-Year Urban Programs	Form A-Teacher's Ranking Number Children	Form A-Teacher's Ranking Correlation	Form A-Teacher's Ranking Weighted Value	Form B-Teacher's Ranking Number Children	Form B-Teacher's Ranking Correlation	Form B-Teacher's Ranking Weighted Value	Form A - Form B Number Children	Form A - Form B Correlation	Form A - Form B Weighted Value
28	11	.762	8.382	9	.246	2.214	9	.000	0.000
29	10	.767	7.670	9	.560	5.040	9	.160	1.440
30	19	.824	15.656	19	.774	14.136	19	.736	13.984
31	15	.715	10.725	15	.398	5.970	15	.513	7.695
32	20	.809	16.180	15	.835	12.525	15	.547	8.205
33	20	.231	4.620	18	.396	7.128	18	.817	14.706
34	14	.871	12.194	13	.751	9.763	13	.872	11.336
35	10	.908	9.080	9	.863	7.767	9	.879	7.911
36	27	.848	22.896	26	.601	15.626	26	.524	13.624
37	27	.650	17.550	27	.672	18.144	27	.653	17.631
38	8	-.024	-0.192	7	-.107	-0.749	7	.513	3.591
39	20	.890	17.800	8	.595	4.760	8	.881	7.048
40	19	.886	16.834	18	.813	14.634	18	.732	13.176
41	12	.890	10.680	11	.841	9.251	11	.777	8.547
42	15	.943	14.145	13	.588	7.644	13	.291	3.783
43	19	.863	16.397	18	.787	14.166	18	.891	16.038
44	15	.792	11.880	14	.893	12.502	14	.786	11.004
45	13	.929	12.077	13	.946	12.298	13	.907	11.791
46	18	.891	16.038	16	.840	13.440	16	.838	13.408
47	23	.706	16.238	21	.502	10.542	21	.822	17.262
48	18	-.156	-2.808	16	.537	8.592	16	-.163	-2.608
49	16	.911	14.576	16	.621	9.936	16	.594	9.504
50	14	.788	11.032	14	.873	12.222	14	.832	11.648
51	13	.850	11.050	9	.804	7.236	9	.767	6.903
52	15	.698	10.470	14	.591	8.274	14	.622	8.708
53	13	.727	9.451	13	.624	8.112	13	.897	11.661
54	14	.643	9.002	14	.310	4.340	14	.697	9.758

(continued)

RANK COEFFICIENT OF CORRELATION BETWEEN TEACHERS' RANKS OF CHILDREN AND CHILDREN'S SCORES ON FORM A AND FORM B OF TEST AND BETWEEN FORM A AND FORM B TEST SCORES (CONTINUED)

Coded Full-Year Urban Programs	Form A-Teacher's Ranking			Form B-Teacher's Ranking			Form A - Form B		
	Number Children	Correlation	Weighted Value	Number Children	Correlation	Weighted Value	Number Children	Correlation	Weighted Value
55	10	.830	8.300	9	.917	8.253	9	.700	6.300
56	14	.807	11.298	13	.758	9.854	13	.793	10.309
57	20	.761	15.220	19	1.000	19.000	19	.684	12.996
58	20	.927	18.540	19	.010	.190	19	.039	.741
59	20	.712	14.240	18	.641	11.538	18	.682	12.276
60	14	.666	9.324	13	.692	8.996	13	.968	12.584
61	20	.721	14.420	20	.729	14.580	20	.736	14.720
62	19	.291	5.529	15	.428	6.420	15	.349	5.235
63	8	.889	7.112	7	.715	5.005	7	.956	6.692
64	9	.917	8.253	9	.842	7.578	9	.713	6.417
65	20	.807	16.140	13	.929	12.077	13	.763	9.919
66	15	.779	11.685	15	.860	12.900	15	.780	11.700
67	13	.872	11.336	13	.866	11.258	13	.781	10.153
68	16	.663	10.608	14	.626	8.764	14	.533	7.462
69	20	.795	15.900	20	.687	13.740	20	.803	16.060
70	15	.891	13.365	15	.998	14.970	15	.905	13.575
71	20	.530	10.600	17	.805	13.685	17	.748	12.716
72	15	.709	10.635	14	.538	7.532	14	.697	9.758
73	18	.602	10.836	16	.576	9.216	16	.618	9.888
74	18	.973	17.514	14	.802	11.228	14	.839	11.746
75	14	.964	13.496	14	.707	9.898	14	.602	8.428
76	17	.985	16.745	17	.929	15.793	17	.948	16.116
77	15	.691	10.365	13	.558	7.254	13	.545	7.085
78	19	.871	16.549	17	.926	15.742	17	.845	14.365
79	15	.383	5.745	6	.734	4.404	6	.661	3.966
80	20	.770	15.400	16	.239	3.824	16	.689	11.024
81	20	.398	7.960	19	.381	7.239	19	.795	15.105

(continued)

RANK COEFFICIENT OF CORRELATION BETWEEN TEACHERS' RANKS OF CHILDREN AND CHILDREN'S SCORES ON FORM A AND FORM B OF TEST AND BETWEEN FORM A AND FORM B TEST SCORES (CONTINUED)

Coded Full-Year Urban Programs	Form A-Teacher's Ranking			Form B-Teacher's Ranking			Form A - Form B		
	Number Children	Corre-lation	Weighted Value	Number Children	Corre-lation	Weighted Value	Number Children	Corre-lation	Weighted Value
82	15	.919	13.785	15	.840	12.600	15	.806	12.090
83	15	.809	12.135	15	.732	10.980	15	.635	9.525
84	6	.714	4.284	6	.471	2.826	6	.814	4.884
85	9	.742	6.678	5	.838	4.190	5	.575	2.875
86	20	.660	13.200	18	.307	5.526	18	.611	10.998
87	19	.430	8.170	19	.742	14.098	19	.733	13.927
88	20	.400	8.000	20	.478	9.560	20	.887	17.740
89	19	.688	13.072	19	.741	14.079	19	.773	14.687
90	17	.680	11.560	8	.358	2.864	8	.300	2.400
91	20	.603	12.060	20	.463	9.260	20	.475	9.500
92	15	.742	11.130	11	.582	6.402	11	.433	4.763
93	20	.832	16.640	20	.802	16.040	20	.872	17.440
94	9	.721	6.489	6	.572	3.432	6	.829	4.974
95	20	.499	9.980	17	.402	6.834	17	.515	8.755
96	5	1.000	5.000	5	.700	3.500	5	.700	3.500
97	15	.742	11.130	15	.578	8.670	15	.749	11.235
98	20	.764	15.280	20	.668	13.360	20	.626	12.520
99	25	.641	16.025	13	.642	8.346	23	.798	18.354
100	6	.543	3.258	7	1.000	7.000	6	.600	3.600
101	15	.843	12.654	14	.766	10.724	14	.756	10.584
102	19	.555	10.545	16	.661	10.576	16	.250	4.000
103	20	.700	14.000	19	.671	12.749	19	.778	14.782
104	18	.653	11.754	18	.617	11.106	18	.508	9.144
105	15	.865	12.975	14	.775	10.850	14	.873	12.222
106	9	.319	2.871	9	.300	2.700	9	.526	4.734
107	16	.753	12.048	16	.877	14.032	16	.808	12.928
108	13	.723	9.399	14	.970	13.580	15	.686	10.290

(continued)

RANK COEFFICIENT OF CORRELATION BETWEEN TEACHERS' RANKS OF CHILDREN AND CHILDREN'S SCORES ON FORM A AND FORM B OF TEST AND BETWEEN FORM A AND FORM B TEST SCORES (CONTINUED)

Coded Full-Year Urban Programs	Form A-Teacher's Ranking			Form B-Teacher's Ranking			Form A - Form B		
	Number Children	Corre-lation	Weighted Value	Number Children	Corre-lation	Weighted Value	Number Children	Corre-lation	Weighted Value
109	13	.786	10.218	13	.841	10.933	13	.822	10.686
110	12	.509	6.108	9	.634	5.706	9	.913	8.217
111	14	.656	9.184	14	.700	9.800	14	.751	10.514
112	8	.756	6.048	8	.810	6.480	6	.243	1.458
113	30	.817	24.510	29	.789	22.881	29	.271	7.859
TOTALS	1746	78.990	1214.770	1581	74.032	1036.210	1605	73.374	1050.606
Average		.705	.696		.661	.655		.649	.655

TABLE XXVI

RANK COEFFICIENT OF CORRELATION BETWEEN TEACHERS' RANKS OF CHILDREN AND CHILDREN'S SCORES ON FORM A AND FORM B OF TEST AND BETWEEN FORM A AND FORM B TEST SCORES

Coded Full-Year Rural Programs	Form A-Teacher's Ranking			Form B-Teacher's Ranking			Form A - Form B		
	Number Children	Correlation	Weighted Value	Number Children	Correlation	Weighted Value	Number Children	Correlation	Weighted Value
1	9	.630	5.670	9	.946	8.514	9	.805	7.245
2	10	.713	7.130	10	.364	3.640	10	.402	4.020
3	17	.696	11.832	13	.806	10.478	13	.750	9.750
4	18	.609	10.962	19	.594	11.286	18	.791	14.238
5	19	.880	16.720	18	.716	12.888	18	.832	14.976
6	15	-.143	-2.145	17	.259	4.403	15	.727	10.905
7	15	.284	4.260	15	.695	10.425	15	.204	3.060
8	35	.788	27.580	31	.840	26.040	29	.934	27.086
9	20	.277	5.540	16	.088	1.408	16	.716	11.456
10	19	.628	11.932	18	.167	3.006	19	.503	9.557
11	16	.886	14.176	11	.441	4.851	11	.395	3.345
12	19	.624	11.856	19	.119	2.261	18	.283	5.094
13	14	.500	7.000	10	.333	3.330	10	.771	7.710
14	20	.982	19.640	20	.941	18.820	20	.937	18.740
15	20	.621	12.420	17	.797	13.549	17	.632	10.744
16	10	.146	1.460	10	.537	5.370	10	.155	1.550
17	13	.971	12.623	13	.992	12.896	13	.547	7.111
18	15	.877	13.155	15	.849	12.735	15	.913	13.695
19	16	.789	12.624	15	.881	13.215	15	.766	11.490
20	18	.869	15.642	17	.886	15.062	17	.827	14.059
21	20	.733	14.660	3	.834	2.502	3	.834	2.502
22	15	.784	11.760	15	.786	11.790	15	.803	12.045
23	9	.930	8.370	9	.617	5.553	9	.613	5.517
24	15	.825	12.375	13	.816	10.608	13	.678	8.814
25	17	.500	8.500	16	.834	13.344	16	.732	11.712
26	20	.813	16.260	20	.771	15.420	20	.740	14.800
27	20	.403	8.060	12	.413	4.956	12	.324	3.888
28	20	.673	13.460	19	.675	12.825	19	.375	7.125

(continued)

RANK COEFFICIENT OF CORRELATION BETWEEN TEACHERS' RANKS OF CHILDREN AND CHILDREN'S SCORES ON FORM A AND FORM B OF TEST AND BETWEEN FORM A AND FORM B TEST SCORES (CONTINUED)

Coded Full-	Form A-Teacher's Ranking			Form B-Teacher's Ranking			Form A - Form B		
Year Rural Programs	Number Children	Corre- lation	Weighted Value	Number Children	Corre- lation	Weighted Value	Number Children	Corre- lation	Weighted Value
29	18	.472	8.496	13	.631	8.203	13	.607	7.891
30	15	.864	12.960	15	.784	11.760	15	.804	12.060
31	20	.744	14.880	20	.742	14.840	20	.837	16.740
32	20	.562	11.240	20	.564	11.280	20	.340	6.800
33	15	.658	9.870	15	.230	3.450	15	.528	7.920
34	20	.542	10.840	20	.491	9.820	20	.203	4.060
35	17	.667	11.339	18	.806	14.508	18	.704	12.672
36	15	.401	6.015	13	.502	6.526	13	.086	1.118
37	16	.863	13.808	15	.852	12.780	15	.834	12.510
38	20	.338	6.760	18	.171	3.078	18	.628	11.304
39	17	.738	12.546	14	.824	11.536	14	.589	8.246
40	19	.658	12.502	16	.471	7.536	16	.513	8.208
41	11	.797	8.767	10	.906	9.060	10	.940	9.400
42	20	.868	17.360	20	.794	15.880	20	.831	16.620
43	20	.646	12.920	16	.692	11.072	16	.444	7.104
44	15	.503	7.545	14	.709	9.926	14	.695	9.730
45	10	.816	8.160	9	.746	6.714	9	.584	5.256
46	7	.616	4.312	10	.434	4.340	7	-.080	-0.560
47	20	.794	15.880	18	.838	15.084	18	.859	15.462
48	14	.645	9.030	14	.825	11.550	14	.605	8.470
49	15	.677	10.155	15	.622	9.330	15	.800	12.000
50	12	.946	11.352	11	.953	10.483	11	.902	9.922
51	12	.884	10.608	11	.616	6.776	11	.847	9.317
52	15	.929	13.935	14	.692	9.688	14	.929	13.006
53	14	.930	13.020	14	.925	12.950	14	.860	12.040
54	17	.856	14.552	16	.731	11.696	16	.638	10.208
55	20	.845	16.900	18	.780	14.040	18	.648	11.664

(continued)

TABLE XXVI (CONTINUED)

Coded Full-Year Rural Programs	Form A-Teachers' Ranking			Form B-Teachers' Ranking			Form A - Form B		
	Number Children	Correlation	Weighted Value	Number Children	Correlation	Weighted Value	Number Children	Correlation	Weighted Value
56	20	.437	8.740	20	.545	10.900	20	.656	13.120
57	13	.858	11.154	12	.519	6.228	12	.771	9.252
58	18	.567	10.206	18	.572	10.296	18	.506	9.108
59	14	.576	8.064	11	.536	5.896	11	.621	6.831
60	17	.680	11.560	16	.790	12.640	16	.815	13.040
61	18	.654	11.772	18	.716	12.888	18	.732	13.176
62	20	.818	16.360	20	.359	7.180	20	.556	11.120
63	19	.718	13.642	12	.778	9.336	12	.495	5.940
64	20	.920	18.400	13	.743	9.659	13	.805	10.465
65	20	.785	15.700	19	.784	14.896	23	.585	13.455
66	20	.825	16.500	18	.920	16.560	18	.863	15.534
67	20	.658	13.160	20	.291	5.820	20	.625	12.500
68	19	.994	18.886	17	.739	12.563	17	.775	13.175
69	21	.880	18.480	21	.883	18.543	21	.820	17.220
70	20	.578	11.560	19	.494	9.386	18	.825	14.850
71	20	.997	19.940	4	.800	3.200	4	.650	2.600
72	15	.502	7.530	10	.055	0.550	9	.596	5.364
73	20	.438	8.760	19	.711	13.509	19	.644	12.236
74	16	.755	12.080	15	.573	8.595	15	.660	9.900
75	20	.710	14.200	20	.899	17.980	20	.743	14.860
76	20	.881	17.620	20	.884	17.680	20	.842	16.840
77	11	.925	10.175	11	.742	8.162	11	.649	7.139
78	20	.844	16.880	20	.311	6.220	20	.463	9.260
79	12	.811	9.732	12	.756	9.072	12	.845	10.140
80	14	.867	12.138	14	.884	12.376	14	.800	11.200
81	20	.934	18.680	20	.891	17.820	20	.879	17.580
82	19	.870	16.530	18	.873	15.714	18	.831	14.958
83	15	.231	3.465	15	.357	5.355	15	.747	11.205
84	13	.918	11.934	13	.761	9.893	13	.612	7.956
85	17	.888	15.096	16	.591	9.456	16	.782	12.512
TOTALS	1439	60.066	1018.221	1308	56.085	863.454	1302	56.357	872.325
Average		.707	.708		.660	.660		.663	.670

TABLE XXVII

RANK COEFFICIENT OF CORRELATION BETWEEN TEACHERS' RANKS OF CHILDREN AND CHILDREN'S SCORES ON FORM A AND FORM B OF TEST AND BETWEEN FORM A AND FORM B TEST SCORES

Coded Summer Urban Programs	Form A-Teachers' Ranking			Form B-Teacher's Ranking			Form A- Form B		
	Number Children	Correlation	Weighted Value	Number Children	Correlation	Weighted Value	Number Children	Correlation	Weighted Value
1	20	.623	12.460	14	.225	3.150	14	.618	8.652
2	(No Teacher Rank)						16	.338	5.408
3	16	.332	5.312	16	.316	5.506	16	.855	13.680
4	17	.872	14.824	16	.786	12.576	16	.839	13.424
5	19	.641	12.179	18	.679	12.222	18	.784	14.112
6	16	.528	8.448	11	-.047	- 0.517	11	.696	7.656
7	13	.970	12.610	14	.918	12.852	13	.972	12.636
8	15	.683	10.245	13	.149	1.937	13	.514	6.682
9	11	.757	8.327	11	.728	8.008	11	.826	9.086
10	(No Teacher Rank)						18	.526	9.468
11	17	.124	2.108	16	.464	7.424	16	.564	9.024
12	20	.577	11.540	20	.581	11.620	20	.729	14.580
13	14	.079	1.106	10	.306	3.060	16	.509	8.144
14	13	.229	2.977	11	.475	5.225	11	-.327	-3.597
15	20	.418	8.360	17	.665	11.305	17	.348	5.916
16	11	.612	6.732	10	.309	3.090	10	.173	1.730
17	17	.704	11.968	15	.662	9.930	15	.839	12.585
18	14	.845	11.830	12	.701	8.412	12	.778	9.336
19	11	.802	8.822	9	.650	5.850	9	.806	7.254
20	12	.433	5.196	11	.728	8.008	11	.071	0.781
21	9	.155	1.395	8	.417	3.336	8	.727	5.816
22	20	.817	16.340	20	.950	19.000	17	.720	12.240
23	20	.514	10.280	17	.331	5.627	17	.538	9.146
24	7	.215	1.505	7	.536	3.752	4	-.200	-0.800
25	23	.628	14.444	20	.321	6.420	20	.664	13.280
26	20	.647	12.940	17	.533	9.061	17	.732	12.444
27	13	.901	11.713	15	.997	14.955	13	.905	11.765
28	18	.788	14.184	18	.794	14.292	18	.851	15.318
29	14	.894	12.516	12	.833	9.996	12	.771	9.252
30	16	.504	8.064	19	.572	10.868	16	.678	10.848
31	19	.789	14.991	14	.884	12.376	14	.888	12.432

(Continued)

TABLE XXVII (CONTINUED)

Coded Summer Urban Programs	Form A-Teacher's Ranking			Form F-Teacher's Ranking			Form A - Form F		
	Number Children	Correlation	Weighted Value	Number Children	Correlation	Weighted Value	Number Children	Correlation	Weighted Value
32	17	.733	12.461	17	.323	5.491	17	.623	10.591
33	16	.886	14.176	7	.679	4.753	7	.848	5.936
34	9	.936	8.424	9	.980	8.820	9	.992	8.928
35	20	.481	9.620	19	.235	4.465	19	.829	15.751
36	17	.581	9.877	13	.349	4.537	13	.304	3.952
37	20	.585	11.700	19	.279	5.301	19	.448	8.512
38	8	.716	5.728	14	.924	12.936	8	.839	6.712
39	16	.894	14.304	16	.806	12.896	16	.905	14.480
40	15	.806	12.090	15	.708	10.620	15	.789	11.835
41	15	.555	8.325	15	.396	5.940	15	.602	9.030
42	18	.747	13.446	17	.557	9.469	17	.342	5.814
43	13	.786	10.218	13	.614	7.982	13	.785	10.205
44	16	.605	9.680	16	.486	7.776	16	.414	6.624
45	20	.741	14.820	19	.667	12.673	19	.757	14.383
46	15	.965	14.475	15	.644	9.660	15	.714	10.710
47	20	.473	9.460	20	.601	12.020	20	.708	14.160
48	12	.079	0.948	12	.666	7.992	12	.726	8.712
49	20	.565	11.300	15	.867	13.005	15	.768	11.520
50	13	.746	9.698	12	.894	10.728	12	.698	8.376
51	15	.955	14.325	14	.821	11.494	14	.901	12.614
52	15	.918	13.770	15	.762	11.430	15	.090	13.500
53	12	.107	1.284	12	.624	7.488	12	.594	7.128
54	20	.839	16.780	20	.682	13.640	20	.725	14.500
55	19	.958	18.202	16	.431	6.896	16	.520	8.320
56	14	.769	10.766	14	.619	8.666	14	.912	12.768
57	17	.850	14.450	17	.851	14.467	17	.841	14.297
58	15	.949	14.235	15	.665	9.975	15	.816	12.240
59	17	.783	13.311	12	.819	9.828	12	.942	11.304
60	20	.976	19.520	15	.871	13.065	15	.882	13.230
61	20	.657	13.140	19	.622	11.818	19	.834	15.846
TOTALS	939	38.740	639.959	863	35.905	524.522	885	41.252	601.866
Average		.657	.682		.608	.681		.676	.680

TABLE XXVIII

RANK COEFFICIENT OF CORRELATION BETWEEN TEACHERS' RANKS OF CHILDREN AND CHILDREN'S SCORES ON FORM A AND FORM B OF TEST AND BETWEEN FORM A AND FORM B TEST SCORES

Coded Summer Rural Programs	Form A-Teacher's Ranking			Form B-Teacher's Ranking			Form A - Form B		
	Number Children	Correlation	Weighted Value	Number Children	Correlation	Weighted Value	Number Children	Correlation	Weighted Value
1	28	.587	16.436	28	,252	7.056	28	.302	8.456
2	14	.829	11.606	11	.880	9.680	11	.848	9.328
3	20	.592	11.840	16	.711	11.376	16	.609	9.744
4	19	.656	12.464	18	.764	13.752	18	.759	13.662
5	16	.697	11.152	13	.309	4.017	13	.134	1.742
6	20	.647	12.940	17	.572	9.724	17	.818	13.906
7	13	.697	9.061	13	.656	8.528	13	.613	7.969
8	14	.999	13.986	13	.231	3.003	13	.208	2.704
9	9	.729	6.561	9	.438	3.942	9	.459	4.131
10	18	.612	11.016	17	.583	9.911	17	.888	15.096
11	12	.426	5.112	13	.653	8.489	12	.854	10.248
12	20	.879	17.580	19	.815	15.485	19	.819	15.561
13	18	.709	12.762	20	.977	19.540	18	.823	14.814
14	11	.377	4.147	11	.355	3.905	11	.753	8.283
15	13	.218	2.834	13	.505	6.565	13	.703	9.139
16	14	.745	10.430	13	.654	8.502	13	.757	9.841
17	20	.678	13.560	18	.649	11.682	18	.794	14.292
18	17	.644	10.948	16	.795	12.720	15	.701	10.515
19	18	.466	8.388	17	.616	10.472	17	.748	12.716
20	17	.783	13.311	17	.880	14.960	17	.737	12.529
21	22	.749	16.478	19	.655	12.445	19	.545	10.355
22	16	.858	13.728	15	.764	11.460	15	.856	12.840
23	15	.787	11.805	14	.626	8.764	14	.473	6.622
24	20	.845	16.900	20	.839	16.780	20	.854	17.080
25	16	.094	1.504	13	-.430	-5.590	13	.826	10.738
26	14	-.080	-1.120	13	.055	0.715	13	.659	8.567
27	20	.414	8.280	16	.302	4.832	16	.456	7.296

(continued)

RANK COEFFICIENT OF CORRELATION BETWEEN TEACHERS' RANKS OF CHILDREN AND CHILDREN'S SCORES ON FORM A AND FORM B OF TEST AND BETWEEN FORM A AND FORM B TEST SCORES (CONTINUED)

Coded Summer Rural Programs	Form A-Teacher's Ranking			Form B-Teacher's Ranking			Form A - Form B		
	Number Children	Correlation	Weighted Value	Number Children	Correlation	Weighted Value	Number Children	Correlation	Weighted Value
28	11	.588	6.468	11	.571	6.281	11	.883	9.713
29	14	.516	7.224	13	.465	6.045	13	.667	8.671
30	20	.421	8.420	19	.560	10.640	19	.848	16.112
31	20	.436	8.720	17	.433	7.361	17	.752	12.784
32	10	.198	1.980	10	.014	0.140	10	.227	2.270
33	15	.548	8.220	15	.524	7.860	15	.515	7.725
34	18	.728	13.104	19	.602	11.438	18	.809	14.562
35	14	.595	8.330	14	.934	13.076	14	.658	9.212
36	20	.600	12.000	19	.770	14.630	19	.757	14.383
37	10	.794	7.940	10	.434	4.340	10	.704	7.040
38	19	.799	15.181	19	.825	15.675	19	.864	16.416
39	23	.477	10.971	23	.486	11.178	24	.845	20.280
40	15	.292	4.380	15	.611	9.165	15	.835	12.525
41	9	.496	4.464	13	.241	3.133	8	.530	4.240
42	15	-.059	-0.885	11	.867	9.537	11	.981	10.791
43	12	.826	9.912	10	.879	8.790	10	.812	8.120
44	15	.704	10.560	14	.778	10.892	14	.683	9.562
45	6	.843	5.058	6	.886	5.316	6	.986	5.916
TOTALS	720	26.439	425.756	680	25.275	398.212	671	31.352	468.496
Average		.588	.591		.562	.586		.697	.698

TABLE XXIX

RANK COEFFICIENT OF CORRELATION BETWEEN TEACHERS' RANKS OF CHILDREN AND CHILDREN'S SCORES ON FORM A AND FORM B OF TEST AND BETWEEN FORM A AND FORM B TEST SCORES (IN DEPTH EVALUATION)

Coded Summer Urban Programs	Form A-Teacher's Ranking			Form B-Teacher's Ranking			Form A - Form B		
	Number Children	Correlation	Weighted Value	Number Children	Correlation	Weighted Value	Number Children	Correlation	Weighted Value
A	14	.342	4.788	13	.122	1.586	13	.523	6.799
B	9	.330	2.970	12	.034	0.408	8	.127	1.016
C	11	.805	8.855	10	.103	1.030	10	.513	5.130
D	14	.756	10.584	12	.457	5.484	12	.382	4.584
E	15	.386	5.630	13	.360	4.680	13	.179	2.327
F	21	.651	13.671	21	.748	15.708	21	.765	16.065
G	18	.622	11.196	18	.753	13.554	18	.668	12.024
H	17	.600	10.200	17	.372	6.324	15	.923	13.845
I	16	.689	11.024	15	.681	10.215	15	.959	14.385
J	19	.305	5.795	18	.476	8.568	18	.311	5.598
K	(NO TEACHER RANK)						11	.761	8.371
L	(NO TEACHER RANK)						11	.545	5.995
M	13	.488	6.344	13	.586	7.618	13	.576	7.488
N	13	.710	9.230	13	.617	8.021	13	.622	8.086
O	8	.382	3.056	8	.327	2.616	8	.304	2.432
P	6	.643	3.858	6	.814	4.884	6	.886	5.316
Q	14	.422	5.908	14	.260	3.640	14	.848	11.872
R	14	.242	3.388	14	.545	7.630	14	.649	9.086
S	14	.550	7.700	14	.508	7.112	14	.310	4.340
T	13	.727	9.451	13	.633	8.229	13	.519	6.747
U	15	.511	7.665	15	.451	6.765	15	.760	11.400
V	15	.565	8.475	15	.590	8.850	15	.320	4.800
W	15	.628	9.420	15	.695	10.425	15	.639	9.585
X	14	.676	9.464	14	.761	10.654	14	.906	12.684
Y	16	.643	10.288	14	.660	9.240	14	.890	12.460
Z	12	.955	11.460	12	.937	11.244	12	.804	9.648

(CONTINUED)

RANK COEFFICIENT OF CORRELATION BETWEEN TEACHERS' RANKS OF CHILDREN AND CHILDREN'S SCORES ON FORM A AND FORM B OF TEST AND BETWEEN FORM A AND FORM B TEST SCORES (IN DEPTH EVALUATION CONTINUED)

Coded Summer Urban Programs	Form A-Teacher's Ranking			Form B-Teacher's Ranking			Form A - Form B		
	Number Children	Correlation	Weighted Value	Number Children	Correlation	Weighted Value	Number Children	Correlation	Weighted Value
a	9	.744	6.696	9	.946	8.514	9	.646	5.814
b	7	.679	4.753	7	.500	3.500	7	.893	6.251
c	13	.732	9.516	13	.541	7.033	13	.479	6.227
d	12	.863	10.356	12	.501	6.012	12	.407	5.640
e	13	.604	7.852	13	.893	5.109	13	.580	7.540
f	15	.428	6.420	12	.882	10.584	12	.453	5.436
g	14	.150	2.100	14	.688	9.632	14	.712	9.968
h	14	-.260	-3.640	14	.078	1.092	14	.284	3.976
i	8	.738	5.904	8	-.071	-0.586	8	.048	0.384
j	8	.238	1.904	8	.262	2.096	8	.857	6.856
k	14	.638	8.932	14	.732	10.248	14	.821	11.494
l	11	.948	10.428	11	.673	7.403	11	.545	5.995
m	15	.643	9.645	15	.580	8.700	15	.694	10.410
n	10	.443	4.430	10	.528	5.280	10	.606	6.060
o	10	.910	9.100	10	.715	7.150	10	.688	6.880
p	11	.641	7.051	11	.670	7.370	11	.579	6.369
q	8	.881	7.048	8	.651	5.208	8	.580	4.640
TOTALS	528	23.648	298.915	521	22.259	278.830	537	25.561	322.023
Average		.577	.566		.542	.535		.594	.600

TABLE XXX

RANK COEFFICIENT OF CORRELATION BETWEEN TEACHERS' RANKS OF CHILDREN AND CHILDREN'S SCORES ON FORM A AND FORM B OF TEST AND BETWEEN FORM A AND FORM B TEST SCORES (IN DEPTH EVALUATION)

Coded Summer Rural Programs	Form A-Teacher's Ranking			Form B-Teacher's Ranking			Form A - Form B		
	Number Children	Correlation	Weighted Value	Number Children	Correlation	Weighted Value	Number Children	Correlation	Weighted Value
r	8	.727	5.816	8	.998	7.984	8	.797	6.376
s	7	.817	5.719	8	.714	5.712	8	.960	7.680
t	15	.995	14.925	15	.789	11.835	14	.792	11.088
u	13	.951	12.363	13	.925	12.025	13	.889	11.557
v	14	.979	13.706	13	.928	12.064	13	.920	11.960
w	11	.893	9.823	8	.617	4.936	8	.935	7.480
x	(NO TEACHER RANK)						12	.691	8.292
y	(NO TEACHER RANK)						12	.630	7.560
z	12	.833	9.996	12	.330	3.960	12	.584	7.008
AA	10	.929	9.290	10	.525	5.250	10	.240	2.400
BB	13	1.000	13.000	11	.941	10.351	11	.902	9.922
CC	11	.578	6.358	10	.949	9.490	10	.000	0.000
DD	14	.911	12.754	13	.945	12.285	12	.952	11.424
EE	15	.557	8.355	11	.587	6.457	10	.691	6.910
FF	16	.859	13.744	15	.488	7.320	14	.499	6.986
GG	16	.908	14.528	14	.671	9.394	14	.755	10.570
HH	18	.947	17.046	13	.781	10.153	13	.778	10.114
II	18	.655	11.790	17	.678	11.526	17	.710	12.070
JJ	13	.448	5.824	12	.786	9.432	12	.659	7.908
KK	13	.593	7.709	14	.562	7.868	13	.748	9.724
LL	11	.116	1.276	12	-.292	-3.504	10	.427	4.270
MM	13	.309	4.017	12	.574	6.888	11	.696	7.656
NN	15	.779	11.685	14	.794	11.116	14	.626	8.764
OO	14	.764	10.696	12	.849	10.188	12	.831	9.972
PP	7	.865	6.055	6	.100	6.000	6	.743	4.458
QQ	10	.728	7.280	10	.784	7.784	10	.502	5.020

(CONTINUED)

RANK COEFFICIENT OF CORRELATION BETWEEN TEACHERS' RANKS OF CHILDREN AND CHILDREN'S SCORES ON FORM A AND FORM B OF TEST AND BETWEEN FORM A AND FORM B TEST SCORES (IN DEPTH EVALUATION CONTINUED)

Coded Summer Rural Programs	Form A-Teacher's Ranking			Form B-Teacher's Ranking			Form A - Form B		
	Number Children	Correlation	Weighted Value	Number Children	Correlation	Weighted Value	Number Children	Correlation	Weighted Value
RR	15	.585	8.775	12	.826	9.912	11	.733	8.063
SS	19	.563	10.697	18	.561	10.098	18	.776	13.968
TT	14	.682	9.548	14	.397	5.558	14	.567	7.938
UU	18	.521	9.378	11	.446	4.906	11	.560	6.160
VV	14	.156	2.184	12	.691	8.292	12	.885	10.620
WW	8	.499	3.992	7	.786	5.502	7	.893	6.251
XX	13	.680	8.840	13	.776	10.088	13	.721	9.373
TOTALS	408	22.027	287.169	370	20.479	250.870	385	23.092	269.542
Average		.717	.704		.661	.678		.700	.700

TABLE XXXI

RANK COEFFICIENT OF CORRELATION BETWEEN TEACHERS' RANKS OF CHILDREN AND CHILDREN'S SCORES ON ONE FORM OF TEST WHEN OTHER FORM NOT ADMINISTERED

Coded Full-Year Rural Programs	Number of Children	Correlation A - TR	Weighted Value	Number of Children	Correlation B - TR	Weighted Value
1	15	.765	11.475			
2	17	.625	10.625			
3	15	.687	10.305			
4	14	.756	10.584			
5	17	.393	6.681			
6	17	.729	12.393			
7	16	.667	10.672			
8	15	.861	12.915			
9	6	.986	5.916			
10	9	.821	7.389			
11	13	.870	11.310			
12	18	.722	12.996			
13	20	.649	12.980			
14	12	.752	9.024			
15	13	.857	11.141			
16	20	.600	12.000			
17	5	.700	3.500			
18	13	.922	11.986			
19	17	.805	13.685			
20				12	.735	8.820
TOTALS	272	14.167	197.577	12	.735	8.820
Average		.746	.726		.735	.735
Coded Summer Rural Programs						
1	9	.630	5.670			
2	9	.155	1.395			
3	11	.977	10.747			
4	16	.934	14.944			
5	12	-.239	-2.868			
6				15	.218	3.270
TOTALS	77	2.457	29.888	15	.218	3.270
Average		.491	.388		.218	.218

Totals do not represent all of the children involved in the standardization of Form A and Form B. One summer rural teacher administered Form A to 20 children but did not rank them; one full-year rural teacher gave the Test Form A to 20 children but did not rank them; and one summer rural teacher gave Form B to 19 children but did not rank them. It is possible that the ranking letters were enclosed with packets of executed answer sheets which were lost in the mail. Although these children were not included in computing the coefficients of correlation discussed in this report, they were used in the development of percentile ranks, means, medians, standard deviations, and semi-interquartile ranges which were computed for a total of 6662 children on Form A and 5271 on Form B.

TABLE XXXII

RANK COEFFICIENT OF CORRELATION BETWEEN TEACHERS' RANKS OF CHILDREN AND CHILDREN'S SCORES ON ONE FORM OF TEST WHEN OTHER FORM NOT ADMINISTERED

Coded Full-Year Urban Programs	Number of Children	Correlation A - TR	Weighted Value	Number of Children	Correlation B - TR	Weighted Value
1	16	.912	18.240			
2	20	.460	9.200			
3	15	.686	10.290			
4	13	.752	10.582			
5	11	.697	7.667			
6	17	.724	12.208			
7	15	.866	12.990			
8	14	.727	10.178			
9	12	.435	5.220			
10	14	.748	10.472			
11	15	.919	13.785			
12	20	.842	16.840			
13	12	.880	10.560			
14	17	.977	16.609			
15	20	.233	4.660			
16	16	.690	10.950			
17	15	.482	6.420			
18	20	.661	13.220			
19	13	.525	7.875			
20	19	.717	13.623			
21	12	.525	6.300			
22	15	.965	14.475			
23	14	.871	11.774			
24	12	.577	6.924			
25	14	.489	6.846			
26	18	.465	8.370			
27	16	.392	6.272			
28	16	.216	4.456			
29	10	.328	3.280			
30	13	.640	8.320			
31	20	.283	5.660			
32	15	.154	2.310			
33	20	.755	14.345			
TOTALS	509	20.593	320.921			
Average		.621	.587			
Coded Summer Urban Programs						
1	20	.826	16.520			
2	15	.564	8.460			
3	12	.887	10.644			
4	16	.747	11.952			
5	9	.825	7.425			
6				10	.306	3.060
TOTALS	72	3.849	55.001			
Average		.769	.764	10	.306	3.060

It was interesting to compute some of the coefficients of correlation for answer sheets and ranking letters which were returned after all of the scattergrams and statistical computations had been completed for the 6662 children involved in standardization of Form A and the 5271 used in similar computations for Form B. The late arrivals did not appear to differ greatly from the ones which were received in time to be used in the study. In one instance, the late arrival did not include a ranking letter, but the correlation between Forms A and B for those 11 children was .510, weighted value 5.610. Other late arrivals are presented in the following table.

TABLE XXXIII

Program	Number	A-TR	Wt.Val.	B-TR	Wt.Val.	A-B	Wt.Val.
Sum.Urb.	11	.266	2.926	.734	8.074	.247	2.717
Sum.Urb.	20	.288	5.760	.168	3.360	.609	12.180
Sum.Rur.	9	.571	5.139	.595	5355	.804	7.236
Sum.Rur	10	.494	4.940	-.227	-2.270	.133	1.330
Sum.Rur.	10	.964	9.640	.870	8.700	.939	9.390
F-Y Rur.	15	.533	7.995	.423	6.345	.483	7.245
F-Y Urb.	20	.787	15.740	.863	17.260	.741	14.820
TOTAL	95	3.903	52.140	3.426	46.824	4.466	60.528
Average		.650	.549	.571	.493	.744	.637

APPENDIX C

TABLE XXXIV

RANK COEFFICIENT OF CORRELATION BETWEEN SCORES ON VARIOUS STANDARDIZED TESTS AND FORM A AND FORM B OF WALKER READINESS TEST AND BETWEEN SCORES ON STANDARDIZED TESTS AND TEACHERS' RANKINGS OF CHILDREN IN THEIR ORDER OF READINESS FOR ENTRANCE INTO PUBLIC SCHOOL PROGRAMS

Standardized Test*	Number of Children	Correlation with A	Weighted Value	Correlation with B	Weighted Value	Correlation with TR	Weighted Value
A	15	-.080	- 1.200	.405	6.075	.376	5.640
	13	.748	9.724	.599	7.787	.660	8.580
	20	.396	7.920	.426	8.520	.679	13.580
	10	.334	3.340	.700	7.000	.478	4.780
	13	.385	5.005	.245	3.185	.312	4.065
	14	.881	12.334	.698	9.772	.761	10.654
	18	.429	7.722	.390	7.020	.410	7.380
	19	.390	7.410	.536	10.184	.429	8.151
	5	.300	1.500	.700	3.500	.300	1.500
	15	.645	9.675	.709	10.635	.727	10.985
	27	.465	11.160	.533	14.924	.496	13.392
	18	.251	4.518	.607	10.926	.232	4.176
	13	.354	4.602	.270	3.510	.270	3.510
	8	.185	1.480	.536	4.288	.822	6.576
	13	.364	4.732	.751	4.563	.437	5.681
	12	.327	3.924	.000	.000	.450	4.950
	11	.710	7.810	.689	7.579	.901	9.911
	13	.369	4.797	.413	5.369	.512	6.656
	18	.262	4.716	.442	7.956	.442	7.956
	15	.124	1.860	.439	6.585	.367	5.505
	15	.777	10.101			.610	9.150
	15	.228	3.420			.212	3.180
	12	.607	7.284			.430	5.160
	17	.477	4.109			.326	5.542
	19	.107	2.033			.210	3.990
TOTALS	368	10.107	139.976	10.088	139.378	11.849	170.650
Average		.404	.380	.504	.481	.474	.464
B	13	.600	7.800	.365	4.745	.465	12.835
	10	.527	5.270	.800	8.000	.310	3.100
	19	.588	11.172	.349	6.980	.416	7.904
TOTALS	42	1.715	24.242	1.514	19.725	1.191	23.839
Average		.572	.577	.505	.470	.397	.567
C	12	.609	7.917	.741	9.633	.560	6.720
	12	.810	10.530	.688	8.256	.800	9.600
	12	.388	4.656	.719	8.628	.412	4.944
	16	.530	8.480			.667	11.832
TOTALS	52	2.337	31.583	2.148	26.517	2.439	33.096
Average		.584	.607	.716	.737	.610	.636

(Continued)

TABLE XXXIV (CONTINUED)

Standardized Test*	Number of Children	Correlation with A	Weighted Value	Correlation with B	Weighted Value	Correlation with TR	Weighted Value
D	20	.927	18.540	.913	18.260	.600	12.000
	23	.686	15.778	.502	11.546	.657	15.111
TOTALS	43	1.613	34.318	1.415	29.806	1.257	27.111
Average		.807	.798	.708	.697	.629	.631
E	18	.605	10.890	.349	6.282	.595	10.710
	9	.884	7.956	.805	7.245	.821	7.389
	15	.759	11.385	.796	11.940	.694	10.410
	9	.921	8.289	.613	5.517	.890	8.010
	18	.788	14.184	.685	14.166	.787	14.166
TOTALS	69	3.957	52.704	3.787	50.685	3.248	40.657
Average		.791	.763	.757	.735	.650	.607
F	15	.334	5.010	.338	5.070	.335	5.025
	4	.400	1.600	.600	2.400	.420	1.680
	12	.558	6.696	.192	2.304	.550	6.600
	16	.459	7.344	.586	9.392	.369	5.904
TOTALS	47	1.751	20.650	1.716	19.166	1.674	19.209
Average		.437	.439	.429	.408	.418	.409
G	15	.204	3.060	.356	5.340	.301	4.515
H	10	.370	3.700	.425	4.250	.398	3.980
I	20	.677	13.540	.697	13.940	.698	13.960
J	10	.213	2.130	.309	3.090	.402	4.020
K	10	.201	2.010	.671	6.710	.410	4.100
L	10	.249	2.490	.355	3.550	.331	3.310
M	10	.576	5.760	.561	5.610	.571	5.710
N	10	.515	5.150	.428	4.280	.501	5.010
O	19	.442	8.398	.516	9.804	.496	9.424
P	20	.429	8.580	.632	12.640		
Q	14	.628	8.792			.610	8.540
Average for All	769(B:677)	.476	.477	.535	.524	.493	.562

* The Standardized Tests listed in Table XXXIV are coded as follows: (A) Peabody Picture Vocabulary Test, (B) Goodenough-Harris "Draw-a-Man" Test, (C) ABC Inventory, (D) Caldwell Pre-School Inventory, (E) Metropolitan Readiness Test, (F) Stanford-Binet, (G) Science Research Associates Pre-School Test, (H) Vineland Scale of Social Maturity (I) Columbia Mental Maturity Scale, (J) American Guidance Pre-School Attainment Test Form I, (K) American Guidance Pre-School Attainment Test Form II, (L) MacMillan Readiness Test, (M) Screening Test of Academic Readiness Potential Score, (N) Screening Test of Academic Readiness IQ Score, (O) Marianne Frostig's Developmental Test of Visual Perception, (P) Jordan and Massey Readiness Test, and (Q) Slosson Intelligence Test.

APPENDIX D

TABLE XXXV

SUMMARY OF FORM A AND FORM B SCORES MADE BY ALL CHILDREN ENROLLED IN SELECTED URBAN SUMMER PROGRAMS, 1969

Scores: Class Interval	FORM A									FORM B								
	Caucasian		Negro		Other		TOTAL			Caucasian		Negro		Other		TOTAL		
	B	G	B	G	B	G	B	G	Total	B	G	B	G	B	G	B	G	Total
49-51	2	2	0	1	0	0	2	3	5	5	7	8	10	0	0	13	17	30
46-48	5	5	4	10	0	0	9	15	24	12	8	28	30	0	1	40	39	79
43-45	3	9	13	16	0	1	16	26	42	8	9	37	25	0	0	45	34	79
40-42	8	11	16	16	0	2	24	25	49	11	6	34	24	0	2	45	32	74
37-39	7	4	22	29	2	1	31	41	72	7	7	25	27	0	0	32	34	66
34-36	9	12	28	23	2	3	39	30	69	7	9	17	24	0	4	24	37	61
31-33	13	3	28	26	1	2	42	40	82	5	7	21	22	0	1	26	29	55
28-30	9	8	27	23	0	0	36	26	62	19	2	8	6	0	2	27	10	37
25-27	5	1	22	23	0	0	27	31	58	4	3	10	9	2	0	16	12	28
22-24	2	2	13	10	0	0	15	11	26	2	1	3	3	0	0	5	4	9
19-21	2	0	12	7	0	1	14	10	24	0	0	1	3	0	0	1	3	4
16-18	2	1	3	8	0	1	5	9	14	2	0	3	0	0	0	5	0	5
13-15	0	0	4	0	0	0	4	1	5	0	0	0	0	0	0	0	0	0
10-12	2	0	0	1	0	0	2	1	3	0	0	0	0	0	0	0	0	0
7- 9	1	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0
4- 6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1- 3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	70	65	192	193	5	11	267	269	536	82	59	195	183	2	10	279	251	527

The children represented in this table were enrolled in summer programs in urban centers selected for an evaluation of all children enrolled to determine whether further sampling would improve the statistical data presented in this study. The computations for children in this "in depth" analysis were not greatly different from those for the representative sample collected from all fifty states. All 536 children were enrolled in a center from each of the Mid-Atlantic, the Western, and the Southwest regions. Only 527 children were present at the time of the second testing.

TABLE XXXVI

SUMMARY OF FORM A AND FORM B SCORES MADE BY ALL CHILDREN ENROLLED IN SELECTED RURAL SUMMER PROGRAMS, 1969

Scores:	FORM A									FORM B								
Class	Caucasian		Negro		Other		TOTAL			Caucasian		Negro		Other		TOTAL		
interval	B	G	B	G	B	G	B	G	Total	B	G	B	G	B	G	B	G	Total
49-51	1	3	0	1	0	0	1	4	5	13	16	1	6	1	2	15	24	39
46-48	10	11	2	3	3	1	15	15	30	18	20	5	5	10	4	33	29	62
43-45	10	11	2	3	2	8	14	22	36	20	21	5	1	5	10	30	32	62
40-42	18	17	8	2	8	3	34	22	56	10	13	6	2	3	4	19	18	37
37-39	13	13	4	2	8	7	25	22	47	17	18	7	1	6	4	30	23	53
34-36	16	17	3	2	7	1	26	21	47	12	13	2	2	5	2	19	17	36
31-33	14	15	7	4	6	4	27	23	50	10	10	3	2	3	2	16	14	30
28-30	16	14	4	3	1	5	21	22	43	5	6	5	2	2	2	12	28	22
25-27	10	8	5	3	3	3	18	14	32	8	7	2	1	0	0	10	8	18
22-24	9	7	3	1	1	1	13	9	22	4	0	1	0	1	1	6	1	7
19-21	9	7	4	0	0	0	13	7	20	7	0	4	1	0	0	11	1	12
16-18	4	4	0	0	0	0	4	4	8	3	0	0	1	0	0	3	1	4
13-15	0	0	0	1	0	0	0	1	1	0	0	0	0	0	0	0	0	0
10-12	1	1	0	1	0	0	1	2	3	3	0	0	0	0	0	3	0	3
7- 9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4- 6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1- 3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	131	128	42	26	39	34	212	188	400	130	123	41	24	36	31	207	178	385

The children represented in this table were enrolled in summer programs in rural centers selected for an evaluation of all children enrolled to determine whether further sampling would improve the statistical data presented in this study. The computations for children in this "in depth" analysis were not greatly different from those for the representative sample collected from all fifty states. All 400 children were enrolled in one or more centers in the Mid- Atlantic, the Southwest, and North Central regions. Only 385 children were present at the time of the second testing.

APPENDIX E
TABLE XXXVII
PROJECT HEAD START: CHILDREN AND FAMILY INFORMATION(PER CENTS) 1968 COMPARED WITH 1969 PROJECT DATA

Children in 1968 Program	Full-Year*	Sample A	B	1968 Program Summer**	Sample A	B
1. Age	100.0	100.0	100.0	100.0	100.0	100.0
a. Under 3 years	2.5	0.1	0.1	0.5	0.0	0.0
b. 3-3 years 11 months	17.8	1.3	1.3	3.2	0.5	0.2
c. 4-4 years 11 months	43.2	25.2	21.3	20.2	14.4	12.3
d. 5-5 years 11 months	31.0	51.5	51.4	40.1	46.6	43.5
e. 6 years and older	3.0	21.9	25.9	33.6	38.5	44.0
f. Not reported	2.3	not used	not used	2.4	not used	
2. Sex	100.0	100.0	100.0	100.0	100.0	100.0
a. Male	52.5			51.4		
b. Female	47.3			48.5		
c. Not reported	0.2			0.1		
3. Ethnic/ Cultural Group	100.0	100.0	100.0	100.0***	100.0	100.0
a. Caucasian	23.4	46.6	61.1	38.0	43.8	58.8
b. Negro	51.0	41.8	24.0	37.2	44.5	24.3
c. Oriental	0.2	0.1	.2	0.0	0.03	.2
d. American Indian	2.3	1.9	4.0	1.2	1.3	4.6
e. Mexican-American	8.8	7.6	7.9	10.2	8.7	9.2
f. Puerto Rican	6.6	0.5	.1	0.6	0.4	.2
h. Eskimo	0.5	0.0	.7	0.3	0.0	.6
i. Other ****	1.0	1.5	2.0	5.9	1.3	2.1
j. Not reported	6.2			6.5		

* Bureau of Census 5% sample

**Bureau of Census 1% sample

***These are the figures mailed from Project Head Start; they do not add up to 100%.

**** In the sample, Other races include Panamanian, Yaqui Indian, Japanese-Hawaiian, Samoan-Filipino. Hawaiian-German, Puerto-Rican-Portuguese, Portuguese-Samoan, Italian, Portuguese-Chinese, Mexican-Hawaiian, Negro-Mexican, Cuban, Negro-Indian, Spanish-Antrillo, Spanish-Scotch, Japanese-American, Hawaiian, and Portuguese.

TABLE XXXVIII

COMPARISON OF 1968 DATA FURNISHED BY THE RESEARCH AND EVALUATION ANALYST FOR PROJECT HEAD START AND DATA CONCERNING REPRESENTATIVENESS OF THE SAMPLING INVOLVED IN THE CURRENT RESEARCH PROJECT FOR SPRING AND SUMMER, 1969

	FULL-YEAR DATA			FULL-YEAR SAMPLE A		FULL-YEAR SAMPLE B	
REGION	Grantees	Centers	Children	Centers	Children	Centers	Children
I. NE	112	635	25,078	57	937	35	496
II. MA	94	506	26,025	20	416	18	340
III. SE	96	878	57,625	62	1091	50	837
IV. GL	102	792	25,048	12	237	9	199
V. SW	99	822	24,840	23	424	18	319
VI. NC	91	655	19,369	50	955	40	769
VII. W	74	630	23.037	10	196	10	172
TOTALS	668	4918	201.022	234	4256	180	3132

	SUMMER DATA			SUMMER SAMPLE A		SUMMER SAMPLE B	
REGION	Grantees	Centers	Children	Centers	Children	Centers	Children
I. NE	154	1,328	60,379	11	164	8	116
II. MA	224	1,778	89,862	32	629	28	554
III. SE	138	979	82,934	14	224	12	172
IV. GL	208	2,709	95,629	14	257	17	296
V. SW	206	1,160	77,895	23	420	21	372
VI. NC	146	798	32,271	17	314	18	299
VII. W	101	682	27.131	19	398	17	330
TOTALS	1177	9.434	466.101	130	2406	121	2139

Although more grantees, centers, and children were reported for summer sessions than for Full-Year Programs during the year 1968, the sampling did not show the same ratios. The reason for this was that the original plan was to sample only Full-Year Programs, but lateness of announcement of the awarding of the grant and slowness in receiving lists of possible participants from each Region, as well as slowness in Full-Year returns, required an alteration in plans. The change came too late during the course of the research project to sample as many summer centers as would have been required to have the correct ratio of summer to Full-Year participants.

It is gratifying that all states and all regions did cooperate, although the returns were more numerous from certain areas, partly because they were among the early regions for which lists were provided by officials in charge of such participation and partly because of somewhat greater interest. In six states only summer programs were involved in the project; so also was the case for Washington, D.C. In eight states only Full-Year programs were represented. In all of the others, the sample included both Full-Year and Summer programs.

TABLE XXXIX
STATES BY OEO REGIONS WHICH PROVIDED SAMPLING FOR TEST STANDARDIZATION

		FORM A			FORM B		
REGION	STATE	Full-Y	Summer	Total	Full-Y	Summer	Total
NE	Maine	7-142	2- 35	9-177	6- 94	1- 18	7-112
	New Hampshire	2- 25	1- 9	3- 34		1- 9	1- 9
	Vermont	3- 46	1- 9	4- 55	2- 26		2- 26
	Massachusetts	10-147	1- 12	11-159	8-107		8-107
	New York	20-309	1- 16	21-325	9-121	1- 15	10-136
	New Jersey	10-181	2- 37	12-218	8-119	2- 32	10-151
	Connecticut	4- 67	2- 34	6-101	2- 29	2- 30	4- 59
	Rhode Island	1- 20	1- 12	2- 32		1- 12	1- 12
MA	Delaware	1- 14		1- 14	1- 10		1- 10
	Washington,DC		1- 11	1- 11		1- 11	1- 11
	Kentucky	4-114	10-182	14-296	3- 48	8-133	11-181
	Maryland	3- 55		3- 55	1- 19		1- 19
	North Carolina	3- 54	10-185	13-239	4- 60	11-210	15-270
	Pennsylvania	3- 46	6-107	9-153	3- 47	3- 56	6-103
	Virginia	4-104	3- 79	7-183	4-127	3- 81	7-208
	West Virginia	2- 29	2- 65	4- 94	2- 29	2- 63	4- 92
SE	Alabama	7-119		7-119	5- 90		5- 90
	Florida	13-220	1- 11	14-231	10-168	1- 11	11-179
	South Carolina	9-168		9-168	9-146		9-146
	Georgia	9-130	8-128	17-258	7- 79	6- 81	13-160
	Mississippi	19-359	2- 39	21-398	14-262	2- 34	16-296
	Tennessee	5- 95	3- 46	8- 141	5- 92	3- 46	8-138
GL	Illinois	3- 99	1- 20	4-119	3- 96	1- 19	4-115
	Indiana	3- 32	2- 30	5- 62		3- 47	3- 47
	Ohio	1- 39	4- 89	5-128	1- 37	4- 84	5-121
	Michigan	1- 1[illegible]	1- 16	2- 30	1- 13	1- 19	2- 32
	Minnesota		4- 76	4- 76		6-106	6-106
	Wisconsin	4- 53	2- 26	6- 79	4- 53	2- 21	6- 74
SW	Arkansas	3- 46	9-190	12-236	3- 41	8-172	11-213
	Louisiana	4- 87	3- 42	7-129	1- 15	3- 39	4- 54
	New Mexico	3- 60	2- 36	5- 96	2- 35	1- 19	3- 54
	Oklahoma	3- 40	4- 67	7-107	3- 58	4- 62	7-120
	Texas	10-191	5- 85	15-276	9-170	5- 80	14-250
NC	Colorado	10-190	1- 20	11-210	9-167	1- 17	10-184
	Idaho	4- 70	1- 20	5- 90	3- 47	1- 20	4- 67
	Montana	5- 77		5- 77	4- 61		4- 61
	Wyoming	1- 17	1- 20	2- 37	1- 16	1- 20	2- 36
	Nebraska	4- 66		4- 66	2- 32		2- 32
	Iowa	8-138	1- 9	9-147	6- 82	1- 9	7- 91
	Kansas	5- 80		5- 80	4- 61		4- 61
	Missouri	9-255	4-110	13-365	9-245	4-109	13-354
	Utah	2- 33		2- 33	2- 32		2- 32
	North Dakota		7-103	7-103		6- 90	6- 90
	South Dakota	2- 29	2- 32	4- 61	2- 26	2- 34	4- 60
	Alaska		3- 67	3- 67		3- 67	3- 67
W	Arizona		5-121	5-121		5-109	5-109
	California	5- 99	5- 83	10-182	5- 92	4- 71	9-163
	Nevada		1- 16	1- 16		1- 7	1- 7
	Hawaii	1- 19	1- 32	2- 51	1- 19	1- 28	2- 47
	Oregon	1- 24	1- 15	2- 39	1- 19	1- 14	2- 33
	Washington	3- 54	3- 64	6-118	3- 42	2- 34	5- 76
TOTAL		234-4256	130-2406	364-6562	180-3132	121-2139	301-5271

TABLE XXXX

OEO REGIONS AND STATES WHICH PROVIDED SAMPLING FOR TEST STANDARDIZATION

REGION	STATE	NUMBER INVITED	FORM A			FORM B		
			Urban	Rural	Total	Urban	Rural	Total
I. NE	Maine	15	3- 61	6-116	9-177	1- 41	6- 98	7-112
(128)	New Hamp.	6	2- 16	1- 18	3- 34	1- 9		1- 9
	Vermont	4	2- 29	2- 26	4- 55		2- 26	2- 26
	* Mass.	19	7- 96	4- 63	11-159	5- 59	3- 48	8-107
	New York	49	10-146	11-179	21-325	5- 68	5- 68	10-136
	New Jersey	19	10-178	2- 40	12-218	8-113	2- 38	10-151
	Conn.	10	6-101		6-101	4- 59		4- 59
	Rhode Is.	6	2- 32		2- 32	1- 12		1- 12
II. MA	Delaware	2		1- 14	1- 14		1- 10	1- 10
	Wash., DC	1	1- 11		1- 11	1- 11		1- 11
(74)	** Kentucky	20	5- 91	9-205	14-296	4- 71	7-110	11-181
	Maryland	4	1- 20	2- 35	3- 55		1- 19	1- 19
	** N. Car.	17	6-116	7-123	13-239	9-161	6-109	15-270
	Penna.	16	5- 75	4- 78	9-153	2- 28	4- 75	6-103
	** Virginia	8	2- 65	5-118	7-183	2- 87	5-121	7-208
	** West Va.	6	1- 14	3- 80	4- 94	1- 14	3- 78	4- 92
III. SE	Alabama	7	4- 67	3- 52	7-119	2- 36	3- 54	5- 90
(106)	Florida	18	11-174	3- 57	14-231	9-142	2- 37	11-179
	S. Car.+	10	3- 55	6-113	9-168	4- 62	5- 84	9-146
	Georgia	28	12-192	5- 66	17-245	10-124	3- 36	13-160
	Miss.	29	10-177	11-221	21-398	7-136	9-160	16-296
	Tenn.	14	5- 85	3- 56	8-141	5- 84	3- 54	8-138
IV. GL	Illinois	8	4-119		4-119	4-115		4-115
	Indiana	11	5- 62		5- 62	3- 47		3- 47
(49)	*** Ohio	10	4- 97	1- 31	5-128	4- 94	1- 27	5-121
	Michigan	4	2- 30		2- 30	2- 32		2- 32
	Minnesota	8		4- 76	4- 76		6-106	6-106
	Wisconsin	8	4- 60	2- 19	6- 79	4- 55	2- 19	6- 74
V. SW (70)	* **Arkansas	14	7-112	5-124	12-236	6- 74	5-139	11-213
	Louisiana	10	4- 86	3- 43	7-129	1- 12	3- 42	4- 54
	New Mexico	12	5- 96		5- 96	3- 54		3- 54
	Oklahoma	14	3- 33	4- 74	7-107	3- 48	4- 72	7-120
	**Texas	15	10-188	5- 88	15-276	9-163	5- 87	14-250
VI. NC	Colorado	18	4- 83	7-127	11-210	5- 98	5- 86	10-184
(97)	Idaho	5	3- 55	2- 35	5- 90	3- 50	1- 17	4- 67
	Montana	7	4- 63	1- 14	5- 77	3- 47	1- 14	4- 61
	Wyoming	3	1- 20	1- 17	2- 37	1- 20	1- 16	2- 36
	Nebraska	8	2- 37	2- 29	4- 66	1- 16	1- 16	2- 32
	* Iowa	16	4- 69	5- 78	9-147	3- 39	4- 52	7- 91
	Kansas	8	5- 80		5- 80	4- 61		4- 61
	* ** *** Missouri	15	5- 81	8-284	13-365	5- 78	8-276	13-354
	Utah	6	2- 33		2- 33	2- 32		2- 32
	N. Dak.	7	4- 61	3- 42	7-103	4- 61	2- 29	6- 90
	S. Dak.	4	1- 9	3- 52	4- 61	1- 6	3- 54	4- 60
VII. W	Alaska	4	2- 39	1- 28	3- 67	2- 38	1- 29	3- 67
	** *** Arizona	10	2- 30	3- 91	5-121	2- 29	3- 80	5-109
	** California	22	5- 91	5- 91	10-182	4- 74	5- 89	9-163
	Hawaii	6	2- 51		2- 51	2- 47		2- 47
	Nevada	5	1- 16		1- 16	1- 7		1- 7
	Oregon	10	1- 15	1- 24	2- 39	1- 14	1- 19	2- 33
	Wash.	11	4- 74	2- 44	6-118	2- 26	3- 50	5- 76
TOTAL(592)		592	208- 3591	156-3071	364-6662	166-2727	135-2544	301-5271

* Experimental forms.

** In Depth Evaluation.

*** Sampled more than one class.

+ Total 10 centers; 1 did Form A only, another did Form B only.

TABLE XXXXI

FORM A RESEARCH PARTICIPANTS BY STATE: RURAL AND URBAN, FULL-YEAR AND SUMMER

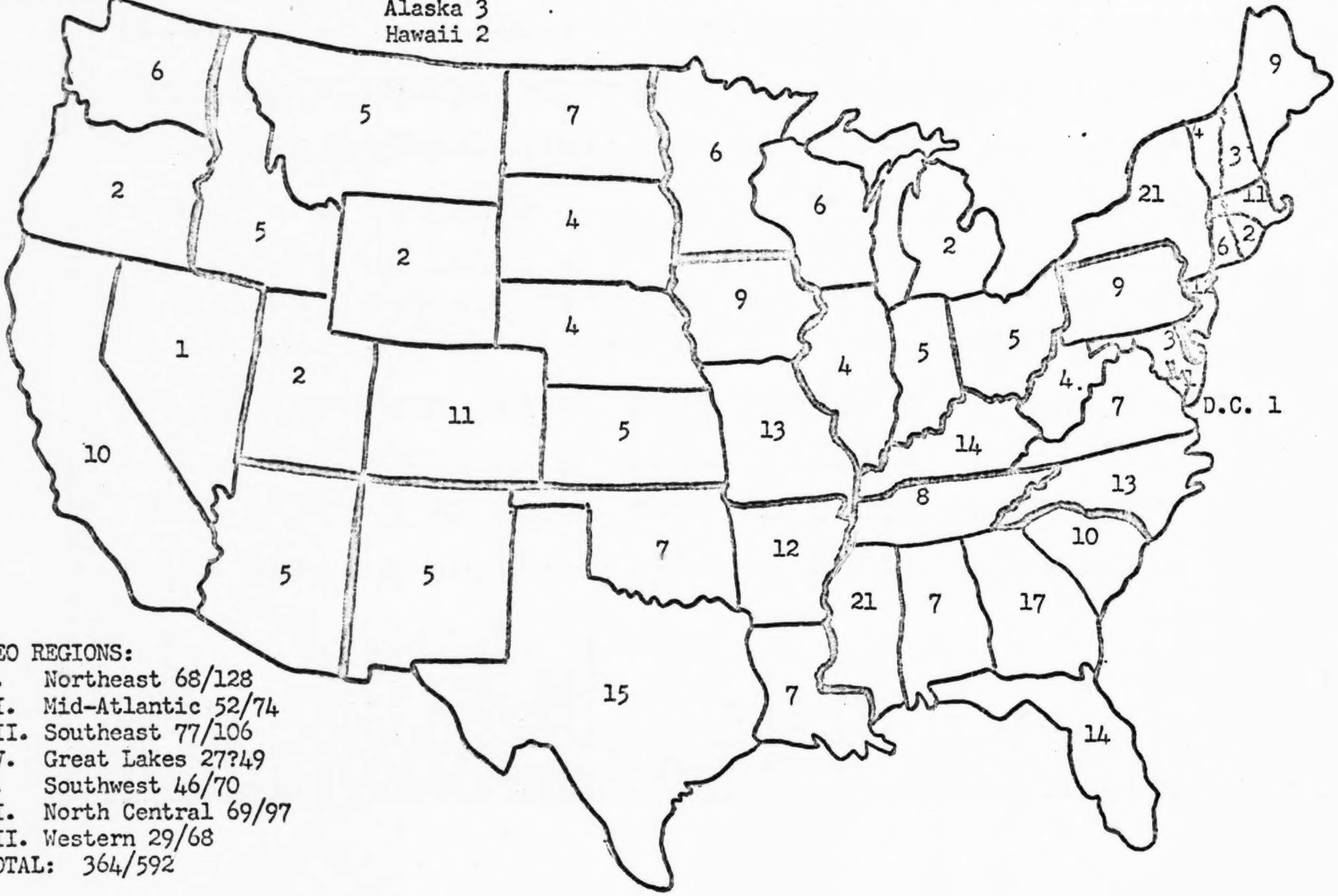
STATE	FULL-YEAR Urban	FULL-YEAR Rural	SUMMER Urban	SUMMER Rural	TOTAL Urban	TOTAL Rural	TOTAL Total
Alabama	4- 67	3- 52			4- 67	3- 52	7-119
Alaska			2- 39	1- 28	2- 39	1- 28	3- 67
Arizona			2- 30	3- 91	2- 30	3- 91	5-121
Arkansas	1- 10	2- 36	6-102	3- 88	7-112	5-124	12-236
California	3- 64	2- 35	2- 27	3- 56	5- 91	5- 91	10-182
Colorado	4- 83	6-107		1- 20	4- 83	7-127	11-210
Connecticut	4- 67		2- 34		6-101		6-101
Delaware		1- 14				1- 14	1- 14
Florida	10-163	3- 57	1- 11		11-174	3- 57	14-231
Georgia	8-120	1- 10	4- 72	4- 56	12-192	5- 66	17-258
Hawaii	1-19		1- 32		2- 51		2- 51
Idaho	2- 35	2- 35	1- 20		3- 55	2- 35	5- 90
Illinois	3- 99		1- 20		4-119		4-119
Indiana	3- 32		2- 30		5- 62		5- 62
Iowa	4- 69	4- 69		1- 9	4- 69	5- 78	9-147
Kansas	5- 80				5- 80		5- 80
Kentucky	1- 18	3- 96	4- 73	6-109	5- 91	9-205	14-296
Louisiana	3- 72	1- 15	1- 14	2- 28	4- 86	3- 43	7-129
Maine	2- 46	5- 96	1- 15	1- 20	3- 61	6-116	9-177
Maryland	1- 20	2- 35			1- 20	2- 35	3- 55
Massachusetts	6- 84	4- 63	1- 12		7- 96	4- 63	11-159
Michigan	1- 14		1- 16		2- 30		2- 30
Minnesota				4- 76		4- 76	4- 76
Mississippi	9-158	10-201	1- 19	1- 20	10-177	11-221	21-398
Missouri	4- 64	5-191	1- 17	3- 93	5- 81	8-284	13-365
Montana	4- 63	1- 14			4- 63	1- 14	5- 77
Nebraska	2- 37	2- 29			2- 37	2- 29	4- 66
Nevada			1- 16		1- 16		1- 16
New Hampshire	1- 7	1- 18	1- 9		2- 16	1- 18	3- 34
New Jersey	8-141	2- 40	2- 37		10-178	2- 40	12-218
New Mexico	3- 60		2- 36		5- 96		5- 96
New York	10-146	10-163		1- 16	10-146	11-179	21-325
North Carolina	1- 19	2- 35	5- 97	5- 88	6-116	7-123	13-239
North Dakota			4- 61	3- 42	4- 61	3- 42	7-103
Ohio	1- 39		3- 58	1- 31	4- 97	1- 31	5-128
Oklahoma	2- 20	1- 20	1- 13	3- 54	3- 33	4- 74	7-107
Oregon		1- 24	1- 15		1- 15	1- 24	2- 39
Pennsylvania	2- 26	1- 20	3- 49	3- 58	5- 75	4- 78	9-153
Rhode Island	1- 20		1- 12		2- 32		2- 32
South Carolina	3- 55	6-113			3- 55	6-113	9-168
South Dakota	1- 9	1- 20		2- 32	1- 9	3- 52	4- 61
Tennessee	2- 39	3- 56	3- 46		5- 85	3- 56	8-141
Texas	7-140	3- 51	3- 48	2- 37	10-188	5- 88	15-276
Utah	2- 33				2- 33		2- 33
Vermont	1- 20	2- 26	1- 9		2- 29	2- 26	4- 55
Virginia	2- 65	2- 39		3- 79	2- 65	5-118	7-183
Washington	2- 37	1- 17	2- 37	1- 27	9- 74	2- 44	6-118
West Virginia	1- 14	1- 15		2- 65	1- 14	3- 80	4- 94
Wisconsin	3- 40	1- 13	1- 20	1- 6	4- 60	2- 19	6- 79
Wyoming		1- 17	1- 20		1- 20	1- 17	2- 37
Washington.DC			1- 11		1- 11		1- 11
TOTAL	138-2414	96-1842	70-1177	60-1229	208-3591	156-3071	364-6662

TABLE XXXXII
PARTICIPANTS IN RESEARCH PROJECT BY STATE: RURAL AND URBAN, FULL-YEAR AND SUMMER PROGRAMS (FORM B)

	FULL-YEAR		SUMMER		TOTAL		
STATE	Urban	Rural	Urban	Rural	Urban	Rural	Total
Alabama	2- 36	3- 54			2- 36	3- 54	5- 90
Alaska			2- 38	1- 29	2- 38	1- 29	3- 67
Arizona			2- 29	3- 80	2- 29	3- 80	5- 109
Arkansas	1- 4	2- 37	5- 70	3- 102	6- 74	5- 139	11- 213
California	3- 58	2- 34	1- 16	3- 55	4- 74	5- 89	9- 163
Colorado	5- 98	4- 69		1- 17	5- 98	5- 86	10- 184
Connecticut	2- 29		2- 30		4- 59		4- 59
Delaware		1- 10				1- 10	1- 10
Florida	8- 131	2- 37	1- 11		9- 142	2- 37	11- 179
Georgia	6- 69	1- 10	4- 55	2- 26	10- 124	3- 36	13- 160
Hawaii	1- 19		1- 28		2- 47		2- 47
Idaho	2- 30	1- 17	1- 20		3- 50	1- 17	4- 67
Illinois	3- 96		1- 19		4- 115		4- 115
Indiana			3- 47		3- 47		3- 47
Iowa	3- 39	3- 43		1- 9	3- 39	4- 52	7- 91
Kansas	4- 61				4- 61		4- 61
Kentucky	1- 18	2- 30	3- 53	5- 80	4- 71	7- 110	11- 181
Louisiana		1- 15	1- 12	2- 27	1- 12	3- 42	4- 54
Maine	1- 14	5- 80		1- 18	1- 14	6- 98	7- 112
Maryland		1- 19				1- 19	1- 19
Massachusetts	5- 59	3- 48			5- 59	3- 48	8- 107
Michigan	1- 13		1- 19		2- 32		2- 32
Minnesota				6- 106		6- 106	6- 106
Mississippi	6- 122	8- 140	1- 14	1- 20	7- 136	9- 160	16- 296
Missouri	4- 61	5- 184	1- 17	3- 92	5- 78	8- 276	13- 354
Montana	3- 47	1- 14			3- 47	1- 14	4- 61
Nebraska	1- 16	1- 16			1- 16	1- 16	2- 32
Nevada			1- 7		1- 7		1- 7
New Hampshire			1- 9		1- 9		1- 9
New Jersey	6- 81	2- 38	2- 32		8- 113	2- 38	10- 151
New Mexico	2- 35		1- 19		3- 54		3- 54
New York	5- 68	4- 53		1- 15	5- 68	5- 68	10- 136
North Carolina	2- 26	2- 34	7-135	4- 75	9- 161	6- 109	15- 270
North Dakota			4- 61	2- 29	4- 61	2- 29	6- 90
Ohio	1- 37		3- 57	1- 27	4- 94	1- 27	5- 121
Oklahoma	2- 36	1- 22	1- 12	3- 50	3- 48	4- 72	7- 120
Oregon		1- 19	1- 14		1- 14	1- 19	2- 33
Pennsylvania	2- 28	1- 19		3- 56	2- 28	4- 75	6- 103
Rhode Island			1- 12		1- 12		1- 12
South Carolina	4- 62	5- 84			4- 62	5- 84	9- 146
South Dakota	1- 6	1- 20		2- 34	1- 6	3- 54	4- 60
Tennessee	2- 38	3- 54	3- 46		5- 84	3- 54	8- 138
Texas	6- 119	3- 51	3- 44	2- 36	9- 163	5- 87	14- 250
Utah	2- 32				2- 32		2- 32
Vermont		2- 26				2- 26	2- 26
Virginia	2- 87	2- 40		3- 81	2- 87	5- 121	7- 208
Washington	1- 13	2- 29	1- 13	1- 21	2- 26	3- 50	5- 76
West Virginia	1- 14	1- 15		2- 63	1- 14	3- 78	4- 92
Wisconsin	3- 40	1- 13	1- 15	1- 6	4- 55	2- 19	6- 74
Wyoming		1- 16	1- 20		1- 21	1- 16	2- 36
Washington, DC			1- 11		1- 11		1- 11
TOTAL	104-1742	78-1390	62-985	57-1154	166-2727	135-2544	301-5271

MAP I
PARTICIPANTS IN STANDARDIZATION OF READINESS TESTS BY STATES AND OFFICE OF ECONOMIC OPPORTUNITY RETIONS

Alaska 3
Hawaii 2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OEO REGIONS:
I. Northeast 68/128
II. Mid-Atlantic 52/74
III. Southeast 77/106
IV. Great Lakes 27?49
V. Southwest 46/70
VI. North Central 69/97
VII. Western 29/68
TOTAL: 364/592

APPENDIX F

PARTICIPANTS IN RESEARCH PROJECT TO DEVELOP READINESS TESTS FOR DISADVANTAGED PRE-SCHOOL CHILDREN, FULL-YEAR AND SUMMER, URBAN AND RURAL

Starred agencies (*) were involved in the study both in the sample classes and either experimental preliminary study of the instruments or "in-depth" evaluation. Table XXXX indicates which states were involved in each of these phases of test development.

ALABAMA

1. Cullman City Child Development Center, P.O. Box 955, 512 Second Ave. E., Cullman, Alabama 35055; Exec. Dir., Jere R. Aldridge; Psych. Couns., P. Erdberg. F-Y U.
2. Cullman Co. Comm. on Education, P.O. Drawer 518, Cullman, Alabama 35055; Exec. Dir., W. H. Supt.; Head Start Dir., Grace Luker; Teacher, Mrs. Ival White. F-Y R.
3. Alabama Council on Human Relations, P.O. Box 1632, Auburn, Alabama 36830; Exec. Dir., Nancy S. Spears; Teacher, Sally Ott. F-Y U.
4. Lowndes Co. Board of Education, P. O. Box 125, Haynesville, Alabama 36042; Exec. Dir., Miss Laverne O'Rear; Teacher, Flora Hardin.F-Y R.
5. Sumter Co. Opportunity Inc., P. O. Box 430, Aliceville, Alabama 35442; Ed. Dir., Marilyn Besh; York Center Dir., Elizabeth Rice; Teacher, Sharon Kling. F-Y R.
6. Renaissance Wives Club, Inc., 217 W. North St., Dothan, Alabama 36301; Teachers, Maggie Chambers and Elaine Slaughter. F-Y U.
7. Tuscumbia Public Schools, Cave Street School, Tuscumbia, Alabama 35674; Head Start Dir., Virginia Clark; Teacher, Sara Brenneman.F-Y U.

ALASKA

1. Greater Anchorage Area CAA, Box 4 2136, Anchorage, Alaska 99503; Exec. Dir., John Buchnoldt; Child Dev. Dir., Jesse Kinard. S U.
2. North Star Borough CAA, 516 Church St., P. O. Box 1049, Fairbanks, Alaska 99701; Exec. Dir., C. Maurice Sorensen; Head Start Dir., Constance Smith; Teacher, Mae Johnson. SU.
3. Metlakatla Indian Community, P. O. Box 142, Metlakatla, Alaska 99926; Teacher-Director, Marjorie L. Pratt. S R.

ARIZONA

1. Coconino Co. CAA, P. O. Box 1964, Flagstaff, Arizona 86001; Exec. Dir., M. L. Beshaw; Head Start Dir., Eddie Casillas; Teacher, Ann Watkins. SU.
2. Wilson Head Start, Phoenix, Arizona; Teacher, K. Knepshield. S U.
3. Gila Co. CAA, P. C. Box 422, Miami, Arizona 85539; Exec. Dir., Salvador B. Portillo; Teachers, Ruth K. Thomas, Barbara Herring,S U.
4. Office of Economic Opportunity, P. O. Box 890, 384 13th St., Yuma, Arizona 85364; Exec. Dir., William D. Gray; Head Start Coord., Elaine Trbovich; Teacher, Jo Ann Ham. S R.
5. Quechan Tribal Council, P. O. Box 890, Yuma, Arizona 85364; Exec. Dir., William D. Gray; Teacher, Arlene Patterson. S R.
6.* Committee for Ec. Opp. Inc., 161 W. Alameda St., Tuscon, Arizona 85701; Dr. Joyce Huggins, Mrs. P. J. Larsen, Frances Haworth,Head Start Coord; Teachers: Miss Horn, Mrs. Adams, Mrs. Rosdega, Mrs. Goza, Miss Dobson, Mrs. Sterner, Roy Saintz, M. Wilson. S U and S R.

ARKANSAS

1. Arkansas Mid-Delta OEO Inc., County Courthouse, Helena, Arkansas 72342; Exec. Dir., James E. Murphey. S R.
2. Central Arkansas Dev. Council Inc., 125 Main, P. O. Box 646, Benton, Arkansas 72015; Exec. Dir., James M. Goza; Dir. Ch. Dev. Prog., T. O. Miller; Teacher, Mrs. Hatley Reaves. S U.
3. *ARVAC, Inc., 103½ Locust St., P. O. Box 248, Dardanelle, Arkansas 72834; Exec. Dir., Bob Adkinson; Staff Nurse-Tester, Mrs. Dawn Gardner. F-Y R.
4. *Economic Opp. Agency for Washington Co., 226 N. College Ave., Fayetteville, Arkansas 72701; Exec. Dir., Steve Cummings; Head Start Coord., Nonnie L. Vance; Head Start Directors, Ruth Turner, Donna Kay Dyson, Mamie Pridemore; Teachers: Mrs. Sanders, Mrs. Ledford, Mrs. Parks, Mrs. Nickerson, Miss Eason, Miss Looney, Miss Thomason, Miss Anderson, Miss Barker, Miss Ball, Miss Braswell, Miss Coleman, Miss Doster, Miss Eubanks, Miss Green, Miss Hobson, Miss Moss. S R.
5. Black River Area Dev. Corp., 104A Broadway, Pocahontas, Arkansas 72455; Exec. Dir., J. M. Jansey; Day Care Dir., Virginia Atkison; Teacher, Mrs. L. B. Harrell. S U.
6. Ozark Opportunities Inc., P. O. Box 877, Harrison, Arkansas 72601 Exec. Dir., James Don Young; Teachers, Shirley Lee and Gladys Pledger. S U.
7. Econ. Opp. Council of Ozarks, Inc., Mountain Home, Arkansas 72653 Exec. Dir., Robert Sanner; Teachers: Evelyn Blankenship (Calico Rock) and Carol Harvey (Norfork) F-Y R.
8. Pine Bluff-Jefferson Co. EOC, Inc., City Hall, Pine Bluff, Arkansas 71601; Bennie S. Price; Ass't Dir., Elmer Bell; Teacher, Dorothy Haynie. S U.
9. Arkansas Office of Ec. Opp., Capitol Hall, Little Rock, Arkansas 72202; Child Dev. Prog. Spec., J. Larry Taylor; Follow-Through Teacher. F-Y U.
10. Crowley's Ridge Dev. Counc., Inc., P. O. Box 1343, Jonesboro, Arkansas 72401; Exec. Dir., Bobby J. Yopp; Head Start Dir., Dorothy Book; Teacher, Myra Davis. F-Y R.
11. Southwest Ark.Dev. Counc. Inc., Miller Co. Courthouse, Room 2, Texarkana, Arkansas 75501; Exec. Dir., Alvin Brannon; Head Start Dir., Peggy Ryan; Teachers, Edith Brown, Louise Fuller. S U.
12. East Central Ark. Ec. Opp. Corp., P. O. Box 709, Forrest City, Arkansas 72335; Exec. Dir., John B. Clark; Teacher, Mrs. Billy Rose. S R.

CALIFORNIA

1. Ec. Opp. Comm of Santa Clara Co., Inc., 40 N. 4th St., San Jose, California 95112; Exec. Dir., Jorge T. Acevedo; Head Start Coord., Winona Sample; Training Dir.-Tester, Lucille Gold; Teacher, Bernice Ruff. S U.
2. Placer Co. Coordinating Com., 285 Sacramento St., Auburn, California 95603; Exec. Dir., Leonard H. Down; Head Start Dir., F. L. Honnold; Psychometrist-Tester, Jean Maxwell; Teachers, Gary Corbett and Carol Stiles. S R.
3. Ec.Opp. Comm., 221 Main P.O. Bldg., Fresno, California 93721; Exec. Dir., Frank S. Rodriguez; Psychometrist-Tester, Donna Platzek; Teacher, Valerie Knadler. S R.

4. Econ. and Youth Opp. Agcy. L. A., 314 W. Sixth St., Los Angeles, California 90014; Exec. Dir., Manuel Aragon; Head Start Dir., Charles Manfred; Teacher, Mildred Hockeday. F-Y U.
5. Stanislaus Co.Com.Act.Com, 1317 Eye St., Modesto, California 95354; Exec. Dir., Jessie Smallwood; Head Start Coord., Neil Bodine; Tester, Mrs. Pickett, Ceres D.C.; Teachers, Audrey Handy, A. Files. F-Y U.
6. Pasadena Com. on Hum. Need and Opp., 641 N. Fairoaks Ave., Pasadena, California 91103; Exec. Dir., Lawrence Whitehead; Ch. Dev. Supv., Lois Richard; Teacher, Ruth Stevens, Altadena. F-Y U.
7. Dependency Prevention Com., 104 W. Sixth St., San Bernardino, California; Exec. Dir., Robert McBay; Chm.,Pre-Sch.Prog., Barbara Phelps, Redlands Unified Sch. Dist. 92373; Teachers, Bettie Peatz and Anna Burgess. S U.
8. Ec. Opp. Board, Riverside Co., 3570 9th St., Suite 240, Riverside, California 92501; Exec. Dir., Sidney Wolverton; John E. Gustavsen, Del Rey Day Care; Psych., Elizabeth Newman, Thermal. F-Y R.
9.* Ventura Co. Comm.Act. Com., 3451 Foothill Road, Ventura, California 93001; Exec. Dir., John Sharon; Head Start Dir., Mamie Island; Center Coord.-Tester, J. Singleterry; Teachers: Deborah Morgan (Ventura) Joanne Johnson, Hortense Arias, (Hueneme), Constance Reischman (Oxnard). S U.
10. Tulare C. Com. Act. Agency, Box 289, 204 E. Oak St., Visalia, California 93227; Exec. Dir., Nathan Unikel; Head Start Dir., Senaida Garcia; Teacher-Area Consultant, Lorraine Vernon. F-Y R.

COLORADO

1. Freemont Co. Com. Act. Inc., 531 Main St., 1st Nat. Bank Bldg., Canon City, Colorado 81211; Exec. Dir., Frank J. Cervi; Head Start Dir., Mrs. Jeanie Dageforde. F-Y R.
2. Mesa Co. Comm. Act. Counc. Inc., 628 Reed Ave., Grand Junction, Colorado 81501; Exec. Dir., David F. Munns; Teacher, Joy Wexels.F-Y R.
3. Pueblo S. War on Poverty, Inc., Bon Durant Bldg.,Room M-103, Pueblo, Colorado 81003; Exec. Dir., Wilfred O. Martinez; Teacher, Josephine Montez. F-Y R.
4. Pikes Peak Com. Act. Prog., Inc., 21st and Bear Creek Road, Box 6025, Colorado Springs, Colorado 80904; Soc.Serv.Tr. Coord., Joe Ortega; Teachers: Mrs. Ellen Stillman, Mrs. Laverne Dotson, Mrs. Geneva Coleman. F-Y U.
5. Southwest Colorado CAP Inc., P.O. Box 259, Durango, Colorado 81301; Soc. Serv. Dir., Tom Armenta; Teacher, Mesa Elem.Sch., Cortez. S R.
6. Weld Co. Com.Cent.Found., 1416 Ninth Ave., Greeley, Colorado 80631; Exec. Dir., Chester Hatch; Teachers, Pat Martens, Mrs. Nearpass.F-Y U.
7. Conejos Costilla Com. Act.Assoc., P. O. Box 56, San Luis, Colorado 81152; Exec. Dir., Abel I. Virgil; Teacher, Lucy Quintana. F-Y R.
8. Southern Colorado Com.Act.Com.,Inc., Rm. 201, County Court House, Trinidad, Colorado 81082; Exec. Dir., Joe LaCrue; Teacher, Barbara Burrescia. F-Y U.
9. Dept., of Ed., Alamosa College, Geo. B. Hugins, Head, 610 State St., Alamosa, Colorado 81101; Head Start Dir., Clara Warner; Teacher, Connie Smith. F-Y R.
10. Sheridan Public Schools, Carl E. Slatt, Dir., Box 54, Fort Logan, Colorado 80115. F-Y U.
11. Center CAP, Center, Colorado 81125; Head Start Dir., Betty Hensley; Teachers, Betty Cooper, Geneva Cortez.

CONNECTICUT

1. Community Action Com. of Danbury, 7 Elm St., Danbury, Connecticut 06810; Exec. Dir., Preston D. Wiley; Head Start Dir., Eileen Clark; Early Ch. Ed. Coord., Nancy Terrill; Teachers, Mrs. Pierce, J. Barendse. F-Y U.
2. New Britain Off. Ec. Opp., 61 Main St., New Britain, Connecticut 06051; Exec. Dir., Carolyn Lounsbury; Teacher, Jane Nichols. F-Y U.
3. Community Progress, Inc., 270 Orange St., New Haven, Connecticut 05611; Pre-Kg. Prog.Dir., Adelaide Phillips; Psych.-Research Ass't, Elizabeth Levine; Teacher, L. Eberle. S U.
4. Comm. Renewal Team of Greater Hartford, 721 Main St., Hartford, Connecticut 06103; Exec. Dir., Floyd H. Jackson; Ch.Dev. Prog. Supv., Lillian Ransom; Teacher, Beverly Price. S U.
5. Com. on Training and Employment, 417 Main St., Stamford, Connecticut 06901; Exec. Dir., Patrick J. Hunter; Head Start Dir., Daisy Bache; Teacher, Mabel Thomas. F-Y U.
6. New Opportunities for Waterbury, Inc., 769 N. Main St., Waterbury, Connecticut 06704; Dir., Mrs. Alice Briggs; Pre-Primary Prog., Dept of Ed.; Teacher, Jane Finn, Maloney Center. F-Y U.

DELAWARE

1. Sussex Co. CAA, Inc., 14 S. Race St., Georgetown, Delaware; Exec. Dir., Jon Lowe; Soc. Worker, Janet McPherson, Tester; Teachers, Yvonne Hearn, Ellen Elzey, Seaford Center 19973. F-Y R.

FLORIDA

1. Tampa Ec. Opp. Council, 707 E. Columbus Drive, Tampa, Florida 33602; Exec. Dir., James V. Minardi; Head Start Supv., Mary A. Centinaro; Teacher, Georgia Danahy, Evesta Center. F-Y U.
2. Manatee Opportunity Council, Inc., 215 Manatee Ave. W., P.O. Box 2069, Bradenton, Florida 33505; Exec. Dir., Leon Esachenko; Head Start Dir., Lee Ratliff; Teacher, Etta M. Samuel, Palmetto. F-Y U.
3. Charlotte Co. Bd. of Publ. Instr., Rm. 305, Courthouse Bldg., 1016 Ed. Ave., Punta Gorda, Florida 33950; Supt., J. W. Longstreth: Psych., Patti Disler; Teachers, Rose Willis and Gertha Haddock S U and F-Y U.
4. Child Development Component, Neighborhood Service Centers, Div. of Welfare, HWB, 205 Marion Street, Tampa, Florida 33602; Exec. Dir., Rudolph Spoto; Teacher, Mrs. F. M. Wright. F-Y U.
5. Ec. Opp. Counc. of Indian River, Inc., 4580 33rd Ave., Vero Beach, Florida 32960; Dir., Ch. Dev. Prog. Rev. G. S. Freeze; Teacher, Arthur Felton. F-Y U.
6. Wee Care, 209 S.W. 10th St., Belle Glade, Florida 33430; Dir., Marjorie K. Carew; Sylvia C. Fundora, Ass't Dir., F-Y U.
7. Pinneallas Opp. Council, Inc., 709 Mirror Lake Drive, St. Petersburg, Florida 33701; Exec. Dir., Donald Jones; Teacher, Rhunette Steward, Lakeview. F-Y U.
8. Community Action Org., Inc., P.O. Box 3070, Fort Pierce, Florida 33450; Exec. Dir. S. T. Abodo; Teacher, Verdell Floyd. F-Y U.
9. Pasco Co. Bd. of Pub. Instr., 115 Courthouse, Box 336, Dade City, Florida 33525; Supt., Chester W. Taylor; Teacher, Eunice Weisman, Elfers Center, Trilby, Florida 33593. F-Y R.
10. Hernando Co. Action Inc., 613 Wood Drive, Brooksville, Florida 33512; Teacher Nina Ausby. F-Y R.

11. Okaloosa Co. CAP, Inc., 310 E. Lang Road, Ft. Walton Beach, Florida 32548; Exec. Dir., T. E. Lawrence; Teacher, Mary Woodson. F-Y.
12. Greater Jacksonville Ec. Opp. Inc., 427 Ocean St., P. O. Box 208, Jacksonville, Florida 32201; Exec. Dir., Gordon Bunch; Head Start Dir., June Gibson; Teacher, Capitola Hopkins. F-Y U.
13. Orange County CAA, 27 E. Central Ave., Orlando, Florida 32801; Exec. Dir., Norman Braxton; Ed. Dir., Cheri Goyette; Teacher, John Ferringno, Lockhart Center. F-Y R.
14. Brevard CAC Inc., 307 Avocado Ave., Cocoa, Florida 32922; Dir., Alice Lacy; Head Start Dir., Juanita Johnson; Teachers, Marie Hill and Cora Knighton. F-Y U.

GEORGIA

1. Central Ogeechee Com.Act. Inc., 136 E. Broad St., P. O. Box 405, Louisville, Georgia 30434; Exec. Dir., L. T. Southerland; Head Start Dir., William Eason; Teacher, Mrs. P. Baldwin, Swainsboro. S U.
2. DeKalb Co. Bd. of Ed., DeKalb Co. Courthouse, Decatur, Georgia 30030; Supt., Dr. Amos Trotter; Teachers, Nannie Harms and Mrs. D.Green. S U.
3. Decatur City Bd.of Ed., EOA, Decatur, Georgia 30030; Supt., Rev. Ed. J. Grant; Head Start Dir., Nancy Blaisdell; CAP Director, Mrs. Strain; Teacher, Mrs. DeWeese, Oakhurst Center. S U.
4. Ec. Opp., Atlanta, Inc., 101 Marietta St., Atlanta, Georgia 30303; Antioch North Day Care Center, Atlanta, Georgia 30318; Director, Mrs. Mary Ray; Prog. Dir. Mrs. W. Roy Mason; Teacher, Mrs. Annie Wideman. F-Y U.
5. Altamaha Area CAA, P.O. Box 126, 110 Brazell St., Reidsville, Georgia 30453; Teacher, Mozelle Herrington, Glenville. S R.
6. Clayton C. Econ. Opp. Auth., Box 728, 157 Smith Street, Jonesboro, Georgia; Exec. Dir., Wilma Shellnut; Head Start Dir., Ted Key. S U.
7. Community Act. for Improvement, Inc., P.O. Box 479, LaGrange, Georgia 30240; Exec. Dir., Luke Gill, Jr.; Head Start Coord., Aileene Broome; Teacher, Mrs. Cofield, Tatum Center. F-Y R.
8. East Point Child Care Center, 1147 Calhoun Ave., East Point, Georgia 30044; Exec. Dir., Mrs. Lavern Howell. F-Y U.
9. Fort Street Kiddie Korner Day Care, 562 Boulevard N. E., Atlanta Georgia 30308; Exec. Dir., Mrs. Veronia Johnson; Teachers: Mrs. Knight, Mrs. Freeman, Mr. Embry. F-Y U.
10. St. Paul Day Care Center, 1540 Pryor Road, S. W., Atlanta, Georgia 30315; Exec. Dir., Mrs. Barbara Martin; Teacher, Mrs. Tate F-Y U.
11. Grady Homes Day Care Center, 100 Bell St., S.E., Atlanta, Georgia 30303; Dir., Mrs. Elizabeth R. Carter; Teacher, Mrs. Sarah Gordon. F-Y U.
12. Coastal Georgia Area CAA, Inc., P. O. Box 1814, Brunswick, Georgia 31520; Dir., J. H. McQuaig; Teacher, Sandra Henderson. S R.
13. Tift Co. Bd. of Ed., Industrial School Head Start, Tifton, Georgia 31794; Director, Laura Jo Mikell. S R.
14. Carrollton Service Counc. Inc., 402 Park Lane, Carrollton, Georgia 30117; Dir., Griffin Homes, Mrs. Sally Fisher. F-Y U.
15. College Park Civ. and Ed. Center, 407 W. Harvard St., College Park, Georgia 30337; Dir., Mrs. Eloise Thomas. F-Y U.
16. Tabernacle Baptist Church, 475 Boulevard N.E., Atlanta, Georgia 30308; Teacher, Mattie D. Bruce. F-Y U.
17. Wayne Co. Bd. of Ed., Jesup Elem. and Jr. High, Jesup, Georgia 31545; Prog. Dir., James Bacon; Teacher, Jan Sullivan. S R.

HAWAII

1. University of Hawaii, 1776 University, Nonolulu, Hawaii 96822; Dr. Hannah Herman, Eval. Coord.; Reg. Tr. Officer, Mrs. Kimi Matsuda; Teachers: Mrs. Shimotsu, Mrs. Hook, Mrs. Takahashi, Mrs. Ige. S U.
2. Maui Econ. Opp. Inc., Old Lihikai School, School Street, Kahului, Hawaii 96732; Dir., Joseph M. Souki; Teacher, Mrs. Winifred Marsh. F-Y U.

IDAHO

1. Pocatello School District # 25, P. O. Box 1766, 3115 Pols Line Road, Pocatello, Idaho 83201; Head Start Dir., Virgil Allen; Teacher, Sally Jo Tappendorf. F-Y U.
2. El-Ada CAP, Box 1661, 105 So. 6th St., Boise, Idaho 83702; Head Start Dir., Mr. Russell, Lincoln School; Teachers, Gail Grovom, Mrs. Lingenfelter. S U.
3. Western Idaho Com.Act. Prog. Inc., P. O. Box 37, Emmett, Idaho 83617; Teacher, Eula McCoy, Weiser Center. F-Y R.
4. Snake River Sch. Dist. No. 52, Rt. 2, Moreland, Idaho; Teacher, Jack Thompson, Blackfoot, Idaho 83221. F-Y R.
5. South Central Com.Act. Ag. Inc., 156 3rd Ave., North, P. O. Box 531, Twin Falls, Idaho 83301; Director, A. W. Morgan; Teacher, Dolores Tjarks. F-Y U.

ILLINOIS

1. Jackson Williamson Comm.Act. Ag., City Hall, Third Floor, Carbondale, Illinois 62901; Exec. Dir., Dempsey Grim; Head Start Coord., Sylvia E. Parks; Head Start Dir., Mrs. Jo Lowe; Teacher, Kathleen Taylor. S U.
2. Chicago Committee on Urban Opp., Montrose Center, 901 W. Montrose Ave., Chicago, Illinois 60613; Director, Pearl Steinman. F-Y U.
3. Vermilion Co. Com.Act. Comm., P. O. Box 539, Danville, Illinois 61832; Director, Louis Morris; Teachers, Mrs. Dorothy Paden and Mrs. Kenneth Redenbaugh. F-Y U.
4. Quincy, Illinois, CAP, Bd. of Educ., 1444 Main St., Quincy, Illinois 62301; Director, William Sacadat; Teachers, Mary Pobanz and Mrs. Alice Anderson. F-Y U.

INDIANA

I. Allen Co. Ec. Opp. Council, 2205 Holton Ave., Ft. Wayne, Indiana 46803; Dir., William G. Williams; Head Start Coord., Margaret Earl. F-Y U.
2. Community Org. of Soc. Concerns, Inc., 121 East 7th St., Michigan City, Indiana 46360; Dir., Rev. John F. Carter; Head Start Dir., R. D. Howell; Teacher Coord., Mrs. Virginia Cisler; Teacher, Cora Payne. S U.
3. Hancock-Henry Counties CAP, Inc., 214 S. 14th St., Rm. 205, New Castle, Indiana 47362; Dir., Curtis Anderson; Head Start Dir., John Erickson; Teacher, Sylvia Herran. F-Y U.
4. Ec. Opp. Com. of Knox and Sullivan Co., Inc., 1312 Chestnut St., Vincennes, Indiana 47591; Dir., Isaac K. Beckes; Head Start-Ch. Dev. Ctr. Dir., Mrs. LaVaughn De Hon; Teacher, Judith K. Bobe. F-Y U
5. ACTION, 811 E. Jefferson Blvd., South Bend, Indiana 46617; Dir., James T. Gentry; Head Start Dir., Mrs. James Whitmer. S U.
6. Joint Org. for Broader Serv., Jay Co.Courthouse, Portland, Indiana; Dir., E.J. Priest; Head Start Dir., Mrs. Nedra Iliff; Teacher, Mrs. Wilburta Shannon, Dunkirk, Indiana 47336. S U.

IOWA

1. Iowa East Central Training, 704 S. 2nd St., P. O. Box 747, Clinton, Iowa 52732; Assoc. Dir., W. E. McDonald; Teacher, Mary Hill Grimmett. F-Y U.
2.* West Central Dev. Corp., P. O. Box 46, City Hall, Harlan, Iowa 51537; Dir., Wilbur F. Peters; Teacher, Barbara Jones, Dunlap. Ex.
3.* Bedford Community Head Start, Bedford, Iowa 50833; Counselor, Blaine Shupe; Supt., Johnny Smith. Ex.
4. Southeast Iowa CA Org., Inc., 601 N. Main St., Burlington, Iowa 52601; Ex. Dir., Violet E. Lundquist; Teacher, Mrs. Kathryn Bell.F-Y U.
5. Greater Opportunities, Inc., 212 Plymouth Bldg., Des Moines, Iowa 50309; Exec. Dir., Don McKenzie; Teacher, Mary Jo Ramsey. F-Y U.
6. Your Own United Resources, Inc., 719 Des Moines, P. O. Box 1194, Fort Dodge, Iowa 50501; Exec. Dir., Robert W. Tarbox; Teachers, Jane Munson and Marilyn McNulty. F-Y U.
7. South Central Iowa CAP, Inc., Leon, Iowa 50144; Exec. Dir., Clyde L. Taff; Teacher, Mrs. Camille Jackson, Decatur. F-Y R.
8. Earlham Com. Sch. Title I., Earlham, Iowa 50072; Teachers, Patti Wells and Marjorie Jones. S R.
9. Southern Iowa Ec. Dev. Assn., 102 Church St., Coliseum Bldg., Ottumwa, Iowa 52501; Exec. Dir., Joseph D. Mondanaro; Early Ch.Dev. Dir., Elizabeth Birchen; Teacher, Mrs. John Taylor, Kesauqua. F-Y R.
10. Boone Co. Head Start, Fraser, Iowa Center, Boone Iowa 50036; Teacher, Kjella Piper. F-Y R.
11. Eastern Allamakee Com. Sch. Dist., North East Iowa Com.Act. Corp., Lansing, Iowa 52151; Exec. Dir., Neal Weidenmarin; Sch. Soc. Wkr., Sarah Smerud; Teacher, Betty Granlich, New Albin. F-Y R.

KANSAS

1. East Central Kans. Ec. Opp. Corp., Franklin Co. Courthouse, Ottawa, Kansas; Exec. Dir., James W. Smith; Teacher, Mrs. Alice Crawford. F-Y U.
2. SEK-CAP Inc., 110 N. Ozark, Girard, Kansas 66743; Exec. Dir., James W. Garrison; Early Ch. Dev., Mrs. Diana Carter; Teacher, Mrs. Joan Parker; F-Y U.
3. Econ. Opp. Bd. of Shawnee Co., Inc., 406 Jackson, Topeka, Kansas 66601; Dir., Robert Reed; Research Dir., L. R. Gaston; Teacher, Katie L. Hanson. F-Y U.
4. Wichita Area Comm.Act. Prog. Inc., 1102 W. Douglas, Wichita, Kansas 67203; Exec. Dir., Jack H. Chapman; Teacher, Judith Lujan, Kechi Center; Head Start Dir., Ruth Nathan. F-Y U.
5. Opp. Pre-School, Inc., 2031 Poyntz, Manhattan, Kansas 66502; Dir., Margaret S. Kitterman; Teachers, Diane Rawson and Olive Hooper. F-Y U.

KENTUCKY

1. West Lake Cumberland Area Dev. Counc., 202 Publ. Sq., Box 197, Columbia, Kentucky 42728; Prog. Dir., John Phelps; Teacher, Gladys Rogers. S R.
2. Pennyrile CAA Inc., OEO, 308 Courthouse Annex, Hopkinsville, Kentucky 42240; Exec. Dir., Fred Porter; Tester, Mr. Sandusky, Reg. Mental Clinic; Teacher, Robbie Gary. S R.
3. Eminence Indep. Bd. of Ed., Eminence, Kentucky 40019; Supt., Mr. McCoy Terry; Teachers, Mildred Hobing and Ruby Collette. F-Y R.

4. *Licking Valley Comm. Act. Prog., Inc., 235 (B) Water St., Flemingsburg, Kentucky 41041; Dir., Martin Wisecup; Ed. Dir., Mrs. Eleanor Talbert; Head Start Dir., Adeline Shepherd, Carlisle, Nicholas Co.; Teachers, Jane Becker, Edna Huddleston, Lois Hamm, Pamelia Cameron, Lucille Feeback, and Judy Owen. S R.
5. Central Kentucky CAP Council, 406 W. Main St., Lebanon, Kentucky 40033; Dir., T. W. Grant; Assoc. Dir., John F. Brennan; Teacher, Herman Rowlett. S R.
6. East Lake Cumberland Area Improv. Counc., Rox 116, Monticello, Kentucky 42501; Dir., Thurston Frye; Teacher, Mrs. Paul Jones. S U.
7. Bell-Whitley CAC, Henderson Settlement, Frakes, Kentucky 40940; Dir., Arthur A. Ankeny; Teacher, Mrs. Charles Taylor, Pineville. S R.
8. Kentucky River Foothills Dev. Counc., 416 Chestnut St., Berea, Kentucky 40403; Dir., John Artesani; Teacher, Pauline R. Tincher. S R.
9. Owensboro Area Ec. Opp. Counc. Inc., 102 E. 15 St., Owensboro, Kentucky 42301; Dir., William O. Munsell; Head Start Dir.-Tester, Mary Shields; Teachers, Mrs. Benita Piney and Mrs. Addie Talbott. F-Y& S U.
10. Leslie Knott Letcher Perry CAC, Letcher Co. Courthouse, Box 160, Whitesburg, Kentucky 41858; Dir., Jesse L. Amburgey; Teachers, Leslie Smith and Mabel Hall. S R.
11. North Kentucky CAC, Newport, Kentucky 41071; Mr. Jack Blumenthal, Exec. Dir., 101 Pike St., Covington, Kentucky 41016; Speech Therapist-Tester. S U.

LOUISIANA

1. Community Advancement, Inc., P.O. Box 66043, 2147 Govern St., Baton Rouge, Louisiana 70806; Exec. Dir., Charles Tapp; Dir. of Ed., Rosetta Jackson; Teacher, Mrs. Jessie W. Petin. F-Y U.
2. Beauregard CAA Inc., P.O. Box 573, De Ridder, Louisiana 70634; Exec. Dir., Margaret Lewis; Teachers, Lillian Scott, Carolyn Johnson. S R.
3. Allen Action Agency, Inc., Box 757, Kinder, Louisiana 70648; Exec. Dir., George M. Peck; Head Start Dir., Louis Jeans; Teacher, Vivian Nevils. S U.
4. Gulf Assistance Prog. of SW La., Inc., P. O. Box 3049, Lake Charles, Louisiana 70601; Dir., Mr. Inge; Prog. Coord., Earl F. Sims; Teacher, Mrs. Edith Benoit, Sulphur. F-Y U.
5. St. James Parish Com.Act. Inc., Box 429-506 Louisiana Ave., Lutcher, Louisiana 70071; Dir., Wm. A Abreo; Teacher, Suzanne Melancon, Paulina Center. S R.
6. Evangeline Com. Act. Inc., Courthouse Bldg., Ville Platte, Louisiana 70586; Dir., Allen Bertrand; Head Start Dir., Michael Latigue; Teacher, Beverly Miller. F-Y R.
7. Total Community Action, Inc., 615 N. St., Ed. Dept., Rm. 609, New Orleans, Louisiana 70130; Dir., Winston C. Lill; Coord.-Tchr. Ed., Sophia Sellars; Teacher, Mrs. Mariam Parker. F-Y U.

MAINE

1. *York Co. Com.Act. Corp., County Court House, Alfred, Maine 04002; Dir., Raymond F. Savage; Head Start Coord., Tho. N. Collay; Teachers: Mrs. Desmarius, Nancy Cole, M.H. Hay, Diane Erskine, June Hurd, and Glynis Roberts. F-Y U, S U, and S R.
2. Penobscot Cnt., Com. for CA Inc., 611 Hammond St., Bangor, Maine 04401; Dir., Orville Cookson; Teacher, Mrs. Marcia Smith. F-Y U.

3. Waldo Co. Com. for Soc. Act. Inc., RFD # 2, Freedom, Maine 04941; Dir., Miss Winifred C. Black; Teachers, Marjorie Williams and Harriet Morrow. F-Y R.
4. Central Aroostook Act. Prog., Bldg. 123, Skyway Industrial Park, P.O. Box 1116, Presque Isle, Maine 04769; Exec. Dir., Wm. H. Ramsey; Teacher, Johnnie Cancelarich. S R.
5. St. John Valley Act. Counc. Inc., 14 W. Main St., Fort Kent, Maine 04763; Dir., Quentin Paradis; Head Start Dir., Therese Ouellet, Van Buren, Hamlin Center. F-Y R.
6. Central Community Council, Central Hall, Municipal Bldg., Dover-Foxcroft, Maine 04426; Dir., H.H. Gordon, Jr.; Teacher, Mrs. Sheila Thompson, Sangerville. F-Y R.
7. Portland Regional Opp. Program, 157 State St., Portland, Maine 04111; Dir., Carmine Piscopo; Head Start Dir., Philip Butterfield; Teacher, Carol Small. F-Y U.
8. Oxford Co. Ec. Council, Co. Court Bldg., Western Ave., South Paris, Maine 04281; Exec. Dir., Robert R. Reny; Head Start Dir., Robert O'Connor; Teacher, Mary Paine, Bethel School. F-Y R.
9. Franklin County CAC., Inc., Strong, Maine 04983; Dir., Clinton A. Conant; Teacher, Elaine Haggan, Phillips. F-Y R.
10. Knox Co. CAC, 431 Main Street, Rockland, Maine 04841; Dir., Dominic J. Gacetta; Teacher, Mrs. Patricia Saunders. F-Y R.

MARYLAND

1. Southern Maryland Tri-Co. CAC, Inc., Hughesville, Maryland 20637; Dir., Wm. A Welch, Marshalls Corner; Head Start Dir., Marion Thomas; Teacher, Mae Bowie. F-Y R.
2. Community Action Agency, Baltimore City, 11 E. Mount Royal Ave., Baltimore, Maryland 21202; Dir. Frank J. Ellis; Day Care Dir., Gladys Combs; Teachers, Patricia Renwick and Marie Knowlin. F-Y U.
3. Com. Act. Comm. of Allegany Co., P. O. Box 246, 303 Wash St., Cumberland, Maryland 21502; Dir., Oswald Gigliotti; Par. Coord., Ruth Oglesbay; Prog. Dir., Harry R. Thomas, Lanaconing; Teachers, B. J. Hemmis and Mary Lewellen. F-Y R.

MASSACHUSETTS

1. Self Help, Inc., 71 Centre St., Brockton, Massachusetts 02401; Dir., Dr. Ray T. Mentzer, Jr.; Head Start Adm., Carol Fanning; Teacher, Barbara Spillman, Whitman Center. F-Y R.
2. Community and Reg. Opp. Prog. (CROP), 161 School St., Chicopee, Massachusetts 01013; Gerald Winter, Dir; Teacher, Mrs. Henry Jennings, Holyoke. F-Y U.
3. Montachusett Opp. Council Inc., 305 Whitney St., Leominster, Massachusetts 01453; Dir., John R. Ford; Head Start Dir., A.G. Crossman; Ed. Dir., Ruth Pierce; Teacher, Mrs. Holms, Holy Cross. F-Y R.
4. Lynn Ec. Opp. Inc., 58 Andrew St., Lynn, Massachusetts 01902; Dir., Arthur Kimber; Head Start Dir., Wm. Lelaney; Teacher, Vicki Fling, F-Y U.
5. ONBOARD, Inc., 18 So. Water St., New Bedford, Massachusetts 02740; Dir., John Sharp; Head Start Dir., Mrs. Louis A. Gomes; Psychometrist, Mrs. Frances H. Wetmore. F-Y U.
6. Community Teamwork, Inc., 10 Bridge St., Lowell, Massachusetts 01852; Dir., John J. Mahoney; Head Start Dir., Mrs. Rosalie Dixon; Teacher, Dorothy Turner. F-Y U.

7. Comm.Act. Com. of Cape Cod & Islands, P. O. Box 406, West Bay Road, Osterville, Massachusetts 20655; Dir., Frank Haun; Ad. Asst., Catherine Hansen; Teachers, Joice McClain and Linda Robinson, Centerville Center 02632. F-Y R.
8. *Worcester Com.Act. Counc. Inc., 340 Main St., Rm. 384, Worcester, Massachusetts 01608; Dir., James Popeo; Head Start, Mrs. Janet O'Connor. F-Y U and Ex.
9. Berkshire Com. Act. Counc. Inc., 54 Wendell Ave., Pittsfield, Massachusetts 01201; Dir., James Barnes; Head Start Dir., Jean Hunter; Ed. Supv., Sandra Clark; Teacher, Fanny Culleton, Stockbridge. F-Y U.
10. Eastern Middlesex Opp. Counc., Inc., 182 Washington St., Somerville, Massachusetts 02143; Dir., Robert Muzzy; Psychologist, Sylvia Pollock; Tester, Linda Geary. S U.
11. Springfield Action Comm. Inc., 1660 Main St., Springfield, Massachusetts 01103; Dir., Lewis C. Frayser; Head Start Dir., Dorothy Butler; Teacher, Linda Ulrick. F-Y U.

MICHIGAN

1. St. Dominic's Head Start Center, Pre-School # 2, Detroit, Michigan; Teacher, Eleanor Harper. F-Y U.
2. Bay-Midland Area Com. on E.O., Bangor-Lincoln Head Start, 100 15th St., Bay City, Michigan 48706; Teachers, Margaret Jones, Virginia Phillips. S U.

MINNESOTA

1. Mahube Community Council Inc., 200 East State St., Detroit Lakes, Minnesota 56501; Dir., DelMoure H. Hultgren; Asst. Dir., Maurice Strom; Head Start Dir., Donald McGillis; Teacher, Paul Ness. S R.
2. South Central Comm.Act. Counc., Inc., 711 Second St., Jackson, Minnesota 56143; Dir., Fred D. Huemoeller; Head Start Dir., Merna Kanning; Teacher, Mrs. Joe Eiden, St. James; Center Coord.-Tester, Mary Kvoleski. S R.
3. Koochiching-Itasca Action Program, 5 East 5th St., Grand Rapids, Minnesota 55744; Dir., James Gabrielson; Head Start Dir., Constance Richardson; Teacher, Mary Rierson, Deer River. S R.
4. Minnesota Valley Action Coun., Inc., State Hosp. Campus Bldg. 32; St. Peter, Minnesota 56082; Dir., Carroll Stenson; Head Start Dir., Myrtle Turbes. S R.
5. Inter County Com.Counc. Inc., Box 187, Oklee, Minnesota 56742; Dir., Roy A. Jorgenson; Head Start Dir., Albert Johnson; Teacher, Mrs. Orris, Bagley Center. S R.
6. White Earth Reservation CAP, P.O. Box 274, White Earth, Minnesota 56591; Dir., George V. Goodwin; Teacher, Rosemary Jasken. S R.

MISSISSIPPI

1. United CAC Inc., P. O. Box 116, Ashland, Miss., 38603; Head Start, Ellie Steward. F-Y R.
2. Coahoma Opportunities, Inc., 321 E. 2nd St., Clarksdale, Miss.; Head Start, Mayo Wilson; Teacher, Archie Brown. F-Y R.
3. Associa. Com. of Boliver, P.O. Box 749, Cleveland, Miss. 38732; Head Start Dir., Aaron Vance; Exec. Dir., Billy J.McCain; Teachers, Mrs. Frances Smith and Mrs. C. R. Washington. F-Y U.
4. Sunflower County Progress Inc., P. O. Box 482, Indianola, Miss. 38751; Dir., Colbert Crowe; Head Start Dir., Walter Gregory; Ed. Dir., Jimmy L. Strong. F-Y U.

5. Assoc. Com. of Sunflower Co., P.O. Box 706, Indianola, Miss. 38751; Dir., Mrs. Cora Fleming; Teacher, Miss Helen Smith. F-Y R.
6. Mid-State Opp. Inc., P.O. Box 146, Charleston, Miss. 38921; Dir., Robert R. McRaney; Head Start Dir., Bobby Jones; Teacher, Frederick C. Roberson. F-Y U.
7. Pearl River Valley Opp. Inc., 701 High S. Ave., P.O. Box 266, Columbia, Miss.; Dir., John Paul Roblin; Head Start Dir., Bernice White; Dir. of Ed., E. L. Butler; Ed. Coord., Pauline Stepney; Teachers, Arlene Averett and Carrie Abram, Owen Chapel. SU.
8. Mid-Delta Ed. Assn. Inc., 304 North St., Greenville, Miss. 38702; Dir., Clarence Hall; Head Start Dir., Betty Grayson; Tr. Officer, ReJohnna Brown. F-Y U.
9. Com. Serv. Assoc., Act. for Progress, Wells Bldg., 320 N. West St., Jackson, Miss. 39201; Head Start Dir., Dr. Aaron Shirley; Teacher, Bernice Hughes. F-Y U.
10. CEE- MHC, Vincent Bldg., 203 W. Capitol St., Jackson, Miss. 39201; Prog. Dir., Jeraldine Watts; Rankin Co.Dem.Ctr.,Brandon 39042.F-Y R.
11. Jackson Co.Civ. Act. Com., Citizens for Child Dev., 1011 So. Market, Pasagoula, Miss. 39567; Dir., Richard B. Wright, Jr.; Teacher, Eloise Russell. F-Y U.
12. Lift, Inc., Box 28, Tupelo, Miss. 38802; Exec. Dir., Jack W. McDaniel; Psychologist-Tester, Nancy Gilder; Teachers, Mrs. Davis and Mrs. Melton. F-Y U.
13. Adams-Jefferson Improv. Corp. Inc., 629 Franklin St., Natchez, Miss. 39120; Dir., Jessie Paris; Ed. Coord., Mary J. Mosley; Head Start Dir., Mammie Mazique. F-Y R.
14. Central Mississippi Inc., 110 Quitman St., P.O. Box 268, Winona, Miss.; Dir., Eargia Winters; Teacher, Vivian Adams, Kosciusho.F-Y U.
15. Inst. of Comm.Serv.,Rest College, P. O. Box 261, Holly Springs,Miss. 38635; Dir., Avery Moore; Teacher, Zula Jackson, Oxford. F-Y U.
16. Saints Junior College, P. O. Drawer F., Lexington, Miss. 39095; Head Start Dir., Andrea Clemons; Teachers, Bernice Thomas and Mausie Lewis. F-Y U.
17. Singing River Ed. Assn., Lucedale, Miss. 39452; Dir.,Fred Ezell.F-Y R.
18. Sophia Sutton Mission Assembly, Ch. Dev. Prog., P.O. Box 574, Prentiss, Miss. 39474; Dir., Dr. S. R. Richmond; Teacher, Doris E. Brown. F-Y R.
19. Milton Olive Memorial, Monticello, 310 4th St., Lexington, Miss. 39095; Dir., Otis Nelson; Teacher, Willie Burns, Mileston. S R.
20. Wesley Methodist Church H.S. Ctr., 299 Mibile St., Louisville,Miss. 39339; Ed. Dir., Billy Barnes; Teacher, Louise Cooper. F-Y R.
21. S. W. Miss. Child Dev. Ctr., P. O. Box 257, Liberty, Miss. 39645; Dir., Henrene Matthews; Teacher, Lulu Wilkinson, Jerusalem. F-Y R.

MISSOURI

1. Missouri Ozarks Ec.Op.Corp., P.O. Box 158, 314 Pine St., Richland, Missouri 65556; Dir., Thomas D. Saunders; Ed. Dir., James D. Monk, Teacher, Sue Tally. S R.
2. *West Central Mo.Rural Dev. Corp., 4th and Hickory, P.O. Box 125, Appleton City, Missouri 64724; Dir., Charles Braithwait; Head Start Dir., Louis Jones; Teacher, Charlene Benbow; Experimental Forms Teachers: Jo Ann Rutherford, Clara Warrington, Sybil Sears,Marie Borland, Alta Frieze, Opal Van Gorden, Helen Leininger. F-Y R.
3. Northeast Missouri Regional E.O. Inc., 801 W. Michigan St., Kirksville, Missouri 63501; Dir., Kent Collins; Teacher, P.Edwards.F-Y R.

4. Green Hills Area Hum.Res. Dev. Corp., P.O. Box 270, Trenton, Missouri 63556; Dir., Bill Hubbard; Teacher, Ednagene Hatfield. F-Y U.
5. Delta Area Ec. Opp. Corp., 202 East Main, Portageville, Missouri 63873; Dir., Charles Fleer; Teacher, Virginia Andrews, Hornersville. F-Y R.
6. *NORWES CAP, 308 E. Third St., Maryville, Missouri 64468; Exec. Dir., E. C. Walker; Head Start Dir., Garth Haer; Teachers: Mrs. Armstrong, Mrs. Book, Mrs. Brown, Mrs. Cain, Mrs. Dowden, Mrs. Fisher, Mrs. Richardson, Miss Luhrs, and Mrs. Thiesfield. F-Y R and S R.
7. Ec. Opp.Corp., Greater St. Joseph, 613 Corby Bldg., St. Joseph, Missouri64501; Dir., Kemmyt Roebuck; Teacher, Thelma Hutchison; Head Start Dir., Charles H. McCann. F-Y U.
8. Mo. Valley Resource Dev. Corp., County Court House, Carrolton, Missouri 64633; Dir., Chance D Blaeuer; Teachers: Barbara Gerhard, Ina Johnson, Jess Brandon. F-Y R.
9. *Human Resources Corp., 2405 Truman Road, Kansas City, Missouri 64127; Dir., Chester E. Stovall; Psych.-Tester, Goldman; Teacher, Phyllis Powell, Dunbar, Sample, plus Exp. in 4 classes. F-Y U.
10. Quinco EOA, Inc., Box 455, Troy, Missouri 63458; Dir., John Fielder; Head Start Dir., W B. Middleton; Teacher, Lillie Cottrell. F-Y R.
11. Ozarks Area Comm. Act. Corp., 309 N. Jefferson, Springfield, Missouri 65802; Dir. H.S. Francis; Teacher, Charlotte VanHoose. F-Y U.
12. Ec. Security Corp. of S.W. Area, 513 Kentucky Ave., Joplin, Missouri 64801; Dir., Daryl Andrews; Psych., John Todych. SU.
13. Central Ozarks Ec. Opp.Corp., P.O. Box 246, West Plains, Missouri 65775; Dir., Willis Mushrush; Teacher, Ilene Price. F-Y R.

MONTANA

1. Mt. Powell Ec. Council, Box 1420, Anaconda, Montana 59711; Dir., C. Harlin Buxton; Teacher, Hollie Shrauger. F-Y R.
2. Opportunities Inc., P.O. Box 2532, Great Falls, Montana 59401; Dir., Francis O. Mitchell; H.S. Dir.,R.K.McLeod; Teacher,Mrs. Thronson.FYU.
3. Rocky Mountain Dev. Counc. Inc., Box 721, 324 Fuller Ave., Helena, Montana 59601; Dir., Judith Carlson; Psych.-Tester, L. Talkington.FYU.
4. Community Act. Prog., Billings and Yellowstone, 2714 Montana Ave., Billings, Montana 59101; Dir., Carl Taute; Ass't,Bonny Toavs; Teacher, Marlene Hall. F-Y U.
5. Hill Co. Comm. Act., Inc., 740 Second St., Havre, Montana 59501; Dir., Dick Lodmell; Head Start Dir., Millie Weers. F-Y U.

NEBRASKA

1. Northwest Nebraska CAC, Box 746, Chadron, Nebraska 69337; Dir., Floyd A. Lincoln, Jr.; Teacher, Caroline Hughes. F-Y R.
2. Greater Omaha Com.Act. Inc., 1805 Harney St., Omaha, Nebraska 68102; Dir., Kenneth E. Shearer; Teacher, Rose M. Moore. F-Y U.
3. Golden Hills Com.Act.Counc., P.O. Box 38, Walthill, Nebraska 68067; Dir., Bill Campbell; Head Start Dir., Reuben Snake; Teacher, Judy Moeller. F-Y R.
4. Nebraska Panhandle CAA, 1455 11th St., Gering, Nebraska 69341; Dir., Mrs. Louise R. Korman; H.S.Dir.,Joam Cromer; Teacher, M.Howard.F-YU.

NEVADA

1. Nevada State Com. Act. Prog., Blasdel Bldg., Rm. 204, Carson City, Nevada 89701; Exec. Dir. Robert Robinson; Teacher, Bee Pogue. S U.

NEW HAMPSHIRE

1. Manchester Com. Act. Prog., 967 Elm St., Manchester, New Hampshire 03101; Dir., Robert Scarponi; Head Start Dir., Robert L. Horan; Teacher, Hope Truesdale. SU.
2. Rockingham Co. CAP, Inc., North Road, P.O. Box 366, Exeter, New Hampshire 03833; Dir., Marilyn Levine; Head Start Dir., Peter Jarret; Teacher, Ann McGranaghan, Raymond Center. F-Y R.
3. Community Action Com., Hillsborough Co., 1 Main St., Box 361, Nashua, New Hampshire 03060; Dir., Donald A. Philbrick; Head Start Dir., Mary Malarkey. F-Y U.

NEW JERSEY

1. Burlington Co.Com.Act.Prog., Riverton-Bridgeboro Rds., Moorestown Ch. Dev. Ctr., Moorestown, New Jersey 08016; Dir., Rev. Enoch Rochester; Teacher, Mrs. Charles Cunningham. F-Y U.
2. Bergen Co. CAP Inc., 57 Main St., Hackensack, New Jersey 07601; Dir., Jack Lyle; Head Start Dir., Betty Springer; Teacher, Mrs. Meeks.F-YU.
3. Monmouth CAP Inc., 279 Broadway, Long Branch, New Jersey 07740; Dir., Joseph Taylor; Ed. Coord., Greta V. Butler; Teachers, Joyce Brown and Elsa Campbell. F-Y U.
4. Bayonne Ec. Opp. Found., 473 Broadway Bergoff Bld., Bayonne, New Jersey 07002; Dir., Thomas J. Downey; H.S. Dir., Rabbi R.H. Bendelstein; Teacher, Ethel Cohan. F-Y U.
5. Somerset Com.Act. Prog., Hamilton St., Boro Hall, Bound Brook, New Jersey 08805; Dir., Theodore Taylor; Teacher, Malverse Martin. F-YR.
6. Camden Co. Council on E.O. Inc., 320 Haddon Ave., Convention Hall, Camden, New Jersey 08103; Dir., David K. Tabor; Ctr. Dir., Dr. Phyllis Scott; Teachers, Patricia Thompson and Mrs. Bowman. SU.
7. Jersey City Com. & Neigh. Dev.Org., 391 Jackson Ave., Jersey City, New Jersey 07305; Dir., Earl W. Byrd; H.S. Dir., Gertrude Zeitlin; Teacher, Ethel Persky. F-Y U.
8. Paterson Task Force for Com. Act., 236 240 Broadway, Paterson, New Paterson, New Jersey 07501; Dir., Kenneth Marshall; Head Start Dir., Catherine Micken; Teacher, Winifred Allworth. F-Y U.
9. Ocean Comm. Ec. Act. NOW Inc., 38 Main St., Toms River, New Jersey 08753; Dir., Robert L. Tarver, LTC (Ret.); Teacher, Audrey Walter.FYU.
10. Mercer Co.Com.Act. Counc., Mercer Co. Court House, Trenton, New Jersey 08607; Dir., Lloyd L. Fletcher; H.S. Dir., Mrs. Stevens; Day Care Coord., Johnny Singleton. F-Y U.
11. United Progress, Inc., 443 E. State St., 602 Greenwood, Trenton, New Jersey 08605; Dir., D.J. Cogsville; Cur.Spec., Louise Bennett; Teacher, Gladys Dixon. F-Y U.
12. North Hudson Com.Act. Corp., 507 26th St., Union City, New Jersey 07087; Dir., Nicholas Mastroelli; Teacher, Diane M.Kvilesz. SU.

NEW MEXICO

1. Otero Co.CAA, P.O. Box NN, Alamogordo, New Mexico 88310; Dir., L. D. Graft; H.S. Dir., Jacq. Gervais; Teacher, Dolores Canfield. F-Y U.
2. San Juan Co.Ec.Opp.Counc., P.O. BOx 1822; Farmington, New Mexico 87401; Dir., F.A. Budai; Test.Adm., M.W. Gilbert. S U.
3. Albuquerque-Bernalillo Co.Ec.Opp.Bd.,222 3rd St., NW, Albuquerque, New Mex. 87101; Dir.,James C.Jaramillo; Ch.Dev. Prog.Dir., Darline Wilson; Teacher-Dir., Gertrude Reynolds. F-Y U.

4. Eddy Co. Com. Act. Corp., Room 106, Carlsbad, New Mexico 88220; Dir., Luis Negrete; Ch.Dev.Spec., Dr. F. Elena DeVaney. F-Y U.
5. Santa Fe Com.Act. Org., 811 Cerrillos Road, Santa Fe, New Mexico 87501; Dir., C.C. Capshaw; H.S.Dir., Albert Valdez; Teacher, Betty Valencia. S U.

NEW YORK

1. Albany Co. Opp. Inc., Coun. Com.Serv., 91 State St., Albany, New York 12207; Dir., James Heron, Pearl St. School # 5. F-Y U.
2. Roosevelt Ec. Opp. Counc., Roosevelt Day Care Center, 20 Whitehouse Ave., Roosevelt, New York 11575; Dir. Leanna Hercules. F-Y U.
3. Erie Co.Com.Act. Org., 722 Main St., Buffalo, New York 14202; Dir., Ambroae Lane; Ed. Serv.,H. Gaglione; Teacher, Alpina Howard. F-Y U.
4. Opp. for Otsego, Inc., 199 Main St., Cooperstown, New York 13326; Dir., Alva Welch; H.S. Dir., Esther Fink; Teacher, M. Dutcher. F-YR.
5. Eastchester Com. Opp.Prog. Inc., Hartsdale CAP, 35 Bronx, Tuckahoe, New York; Dir., Phyllis Shearer; H.S. Coord., Glorine Edwards; Teacher, Sandra Jackson. F-Y U.
6. Opportunities for Broome, Inc., Box 496-183 Washington St., Binghamton, New York 13902; Tester, Kathleen Blackman; Teacher,B. Gates.FYU.
7. Schoharie Co. CAP Inc., Middleburg Day Care Center, Box 28, Richmondville, New York 12122; Dir. Henry Gaffey. F-Y R.
8. Ulster Co. Com. Act. Com., Fair and Main St., Kingston, New York 12401; Dir., Stanley Leyden; Teacher, Joyce Kenyon. F-Y U.
9. Opportunities for Cortland Co., Inc., 133 Homer Ave., Cortland, New York 13045; Dir., Daniel W. Sherman, Jr.; Teacher, Mrs. Sweet. S R.
10. St. Lawrence Co.Com.Dev. Prog. Inc., Court and Judson Sts., Canton, New York 13617; Dir. W. R. Bourdette; Teachers, Ruth Hogan and H. La Rouech. F-Y R.
11. Ec. Opp. Prog. - Chemung Co., 150 Fox St., Elmira, New York 14901; Dir., Wm. A. Robson; Psych., Stephen Davis; Dir. Day Care Ctr., Naomi Dreyfull; Teachers: C. Jones, D. Emblidge, A Larson. F-Y U.
12. Newburgh CAC Inc., 150 Liberty St., Newburgh, New York 12550; Dir., Frank E. Jones; Teacher,Cathy Moore. F-Y U.
13. Hancock Day Care Center, Fish's Eddy Center, Long Eddy, N.Y. F-Y R.
14. Warren-Hamilton COS for EO Inc., Warren Co. Municipal Center, Lake George, New York 12845; Dir., Robert D. Muncil; H.S. Dir. E.V. Hamelin; Teacher, Marilyn Somerville, Glenn Falls. F-Y U.
15. Wayne Co.Act. Prog. Inc., Wayne Co. Courthouse, 26 Church St.,Lyons, New York 14489; Act.Dir., Darwin Allison; Dir. Red Creek Center, Marian Curtis; Teacher, Patricia Hartley. F-Y R.
16. Chautauqua Opportunities Inc., 12 Blanchard St., Mayville, New York 14757; Dir. Rolland H. Taft; Falconer, Betty Gilmartin; Sch. Psych. Tester, Robert Pender, Ellington Center. F-Y R.
17. White Plains CAP, 50 Martine Ave., White Plains, New York 10601; Dir. Mrs. Sioux Taylor; D.C. Ctr Dir., Helen Donly; Barbara Banks. F-Y U.
18. Tioga Opportunities Prog. Inc. 68 North Avenue, Owego, New York 13827; Dir. Lloyd Strombeck; Teacher, Erma L. Clupper. F-Y R.
19. Opportunities for Chanango, Inc.,12 W. Park Place, Norwich, New York 13815; Dir. H. Ellison; Day Care, Audrey Spencer. F- Y. R.
20. Utica Com.Act. Inc., 520 Plant St., Utica, New York 13501; Dir. K.R. Mochel; H.S. Dir., Betty Hsiao; Psych. B. Buszek; Teacher, Ellen Boerger. F-Y. U.
21. Oneida Co. CAA, 811 Charlotte St., Utica, New York 13501; Dir. R.La Perap H.S. Director, F. B. Turner. F-Y R.

NORTH CAROLINA

1. Anson Co. Head Start, Bd. of Ed., Caniden Road, Wadesboro, N. C. 28170; Dir., Mae T. Lindsey; Teachers: Mary R. Caple, Marven, and Mary J. Bennett, Wadesboro. S R.
2. Almanance Co.CAP Inc., P.O. Box 38, Burlington, N.C. 27215; Dir., Wm. F. Ross; H.S. Dir., Vance Vines; Teacher, Caroline Hutton. S U.
3. Joint Orange-Chatham CAA, 110 Barnes St., Carrboro, N.C. 27510; Dir., Paul Alston; H.S. Dir.,J.H. Peace; Teacher, Margaret Thomas. S U.
4. Opp. Corp Madison-Buncombe Co., 170 Woodfin St., Asheville, N.C. 28801; D.C. Dir., Rebecca Johnson; Exec. Dir., Ora A. Spaid. F-Y U.
5. Operation Breakthrough Inc., P.O. Box 1470, Durham, N.C. 27702; Dir., Gerald Underwood; H.S. Dir., Marianne Cohen; Ch.House Dir., Sandra Middleton. F-Y U.
6. Gaston Com. Act. Inc., P.O. Box 2319 to 2359, Gastonia, N.C. 28053; Dir., Walter Windlex; Teacher, Rebecca O.Howe, Woodhill. S U.
7. Franklin-Vance-Warren Opp. Inc., Law Bldg., 116 Young St., Henderson, N.C. 27536; Dir., Cornell Manning; Ed. Dir., Mrs.Anna Gerber.F-Y R.
8. Salisbury-Rowan Com. Serv. Counc. Inc., Box 631, Salisbury, N.C. 28144; Dir., Jeffrey M.McArthur; H.S. Supv., Shirley R. Ramseur; Teacher, Shirley Frye. F-Y R.
9. Cleveland Co.Com. Act., Inc., P.O. Box 1808, Shelby, N.C. 28150; Dir., George Newthan; Teacher, Jeanette Blanton. S U.
10. Sencland Com. Act. Inc., P.O. Box 329, Whiteville, N.C. 28463; Dir., James C. Cox; Ed.Dir.-Tester, Mary Caldwell; Dep. Dir. Charles Mumford; Teacher, Rebecca Hilburn, Elizabethtown. S R.
11. Mountain Projects, Inc., 50 C. West Main St., Sylva, N.C. 28779;Dir., George C. Carpenter; Teacher, Edna La Fountaine, Waynesville. F-Y R.
12. Blue Ridge Opp. Comm. Inc., P.O. Box 144, Jefferson, N.C.; Dir., Elizabeth Baker; Teacher, Jewel Miller, Riverview. S R.
13. *Wake Co. Opportunities Inc., 713 N. Person St., Raleigh N.C.; Dir., Eugene Toten; Teachers: Mrs. Shakford, Diane Aldridge, Marina Bell, Edna Buffaloe, I. Brown, Mrs. James Crew, Adelaide Earp, June Fisher, Louise Flagg, Betty Greenwood, H.L. Hickerson, M.H. Howard, Joan Brown, Sandra Canipe, Bessie Lewis, Margaret McIntosh, Winnie Lacewell, D.D. McLeod, Shirley Payne, Mrs. D.B. Nelson, C.S. Royster, M.C. Riddick, R.B. Smith, Christine Taylor, Patricia Tolley, Victoria Walters, Harriet Webster, Mrs. B.S. Williams, Jonibel Willis, Lois Wheeler, Annie Whitfield, Gloria Wilder, Delores Wilder.S U.

NORTH DAKOTA

1. Mandan Pub. Schools, Roosevelt Sch., 905 8th Ave., N.W., Mandan, N. D. 58554; Prin., Everett E. Stromme; Teachers: Mary LaDuke and Sally Sharpe. S U
2. Minot Public Schools, 215 Second St., S.E., Minot, N. D.; Bernard Rostberg, H. S. Dir;Teacher, Harris Walstad. S U.
3. Head Start Prog., Braddock Pub. Schools, Braddock, N. D. 58524; Teacher-Dir., Mrs. Gertrude Liversage. S R.
4. Epping-Wheelock-Springbrook CAA, Williston Pub. Sch. System, Williston, N. D. 58801; Sum.H.S. Dir., Herb Coons; Teacher, Jane Innis SR.
5. Winship School Head Start, Grand Forks, N. D. 58201; Dir., Donn Erickson; Teacher, Mary M. Steckler. S U.
6. Lincoln School Head Start, 2120 S. 9th, Fargo, N.D. 58102; Dir., George Booth; Counselor-Tester, Mr. Durkee. S U.
7. Mt. Pleasant Sch. Dist.,Rollo, N.D. 58367; Dir.-Tester, Owen K.Olson; Teacher, Pat Shape. S R.

OHIO

1. * Stark Co. Of. of Ec. Opp., 852 Stark Co. Office Bldg., Canton,Ohio 44702; Dir., James Kilkenny; H.S. Coord., Doris S. Newman; Sampled Program with 4 centers. Teachers: Marvel H. Brown, Alliance; Mrs. Judy May, Waco; Donamarie Dunkel, Belden, Canton; Stark County Migrant Center, Hartville. S U and S R.
2. Lima-Allen Co. CAC, Memorial Hall, Elm and Elizabeth, Lima, Ohio 45801; Cur. Coord., Betty Bowers; Teachers: Mrs. Nolan and Nancy Pfouts. F-Y U.
3. Marion-Crawford CAC, Kennedy Park, Rte. 1, Marion, Ohio 43302; Dir., Donald P. Shanahan; Teacher, Margaret Topliff. S U.
4. CAC of Belmont Co., Inc., 108 E. Main St., St. Clairsville, Ohio 43950; Dir., J.C. Hornberger; Bellaire Ctr., Ed. John; Teacher, Judy Allen. S. U.
5. Summit Co.-Greater Akron Com. Act., Springfield Brethren Church Ctr., 75 E. Market St., Akron, Ohio 44312; Exec. Dir., William Fowler; H. S. Dir., W. David Lyda; Teachers, Judith Green, Margaret Roberts. S R.

OKLAHOMA

1. Pontotoc Com. Act. Found. Inc., 13th and Stockton, Ada, Okla 74820; Dir., J. E. Teague; H.S. Dir., Paul Landrith; Teacher, Janet Bare.SU.
2. Delta County CAP, 1024 Main, Duncan, Okla. 73533; Dir., M. F. Goodrich; H.S. Dir., Dennis Yoakum; Teacher, Kathi Morgan, Purcell. S R.
3. Muskogee Co. Com. Act. Found., 301 So. Cherokee, Box 647, Muskogee, Okla. 74401; Act. Dir., Maurice Jones. S U.
4. Southwest Okla. Com. Act. Group, 116 South Lee, Altus, Okla 73521; Dir., Fred Beihl; Teacher, Rubye Wooldridge, Magnum. S R.
5. Delaware Cty. C.A. Found. Inc., Box 428, Jay, Okla. 74346; Dir., J.R. Pendergraft; Teacher, Mrs. Alpha Haggard. F-Y R.
6. Com. Dev. Found., Pottawatumie Co., Inc., Rm. 608 American Bldg., Shawnee, Okla 74801; Act.Dir., Mrs. Joe Russell; Teachers: Mrs. Raymer, Mrs. Garrett, Mrs. Miller, Mrs. Pecare. F-Y U.
7. Okmulgee Co. Com. Act. Found., 408 W. 6th, Okmulgee, Okla. 74447; Dir., Felix Taylor; H. S. Dir., Deverreaux McMurry. S. R.
8. Tulsa Ec.Opp. Task Force Inc., 217 Wright Bldg., 115 W. Third St., Tulsa, Okla. 74103; Dir., Billy R. Leathers; Prog. Mgr., Paul Senkoff; H.S. Dir., Roger Kruse; Psych-Tester, Mary Owen; Teacher, S. Daney, Frost School. S U.

OREGON

1. East Oregon Com. Dev. Counc., P.O. Box 1006, La Grande, Oregon 97850; Dir., Dale L. Young; Teacher, Janice Masten. S. U.
2. Jackson Co. Comm. Act. Counc. Inc., Jackson Co. Courthouse, Medford, Oregon 97501; Dir., Richard D. Engstrom; Teacher, Mrs. E. Upp. F-YR.

PENNSYLVANIA

1. Adams Co. Counc. of Com.Serv. Inc., 111 Baltimore St., Office #5, Gettysburg, Penna. 17325; Dir., Eugenia Meligakes; Teacher, Mrs. M. G. Ecker. S U.
2. Greater Erie Anti-Poverty Act. Com., 345 E. 8th St., Erie, Penna. 16501; Dir., Ben Wiley; Teachers: Miss Berraducci, Loretta Speed, and Ruth Watson. F-Y U.
3. Cumb. Dauphin Perry Co. Com. on Ec. Opp., 477 N. Front St., Steelton, Penna. 17113; Ed. Spec., David Messner; H.S. Dir. Dr. Harry G. Jacobs; Teacher, Dorothy Mains, Shippensburg. S R.

4. Blair Co. Ec. Op. Council, Altoona Area Sch. Dist., Altoona, Penna. 16603; Dir. Walter Betar, H.S.; Soc.Wkr.,Ann Petrarca. S U.
5. Allegheny Cnty. Of. of Ec. Opp., 429 Forbes Ave., Allegheny Bldg., Pittsburgh, Penna. 15219; Dir. M. D. Kelsey; Teacher, Donna Ford; Prog. Coord., Margaret Clark. F-Y U.
6. Washington Greene CAC, 2198 N. Main St., Washington, Penna. 15301; Dir., Charles A. Gillespie; Prog. Dev., Rosamund F. Fergus; Teacher, Betty Canning, Burgettstown. S R.
7. Community Progress Counc. Inc., 225 E. Market St., York House, York, Penna. 17403; Dir., Henry B. Harman, Parkway CDC Dir., Marilee K. Jones; Teacher, D. Stoutzenberger. S. U.
8. Westmoreland Co. Conf. Ec. Opp. Inc., 415 Bank and Trust Bldg., Greensburg, Penna. 15601; Dir.-Prin., R. D. Vandergrift. S. R.
9. Opp. Bd. of Montgomery Co., 411 Cherry St., Morristown, Penna.; Dir., Harry Webster, North Hills Day Care Center 19038. F-Y R.

RHODE ISLAND

1. Soc. Progress Act. Corp. of Woonsocket, 285 Main St., Woonsocket, R. I. 20895; Dir. Charles Peloquin; Teacher, R. E. Finkelstein.F-Y U.
2. Blackstone Valley CAP Inc., City Hall, Pawtucket, R.I. 02860; Dir., Vincent S. Ceglie. S U.

SOUTH CAROLINA

1. Charleston Co. Ec. Opp. Comm., 1000 Kingstree St., Charleston, S.C. 09402; Dir., David W. Cox; H. S. Dir., Emily Kline. F-Y U.
2. Lexington Richland Ec. Opp. Agency Inc., USO Bldg., 1729 Assembly St., Columbia, S. C. 29201; Dir., Kirby Jordan; H.S. Dir., Gina Perez; Teachers: Lillian Speaks and Jeannie Graham,Arthurtown. F-YR.
3. Darlington Co. Com. Act. Agency, Box 596, Darlington, S. C. 29532; Dir., Walter Copeland; H.S. Dir., Thomas Heatley; Teacher, Louise Muldrow; Chief Tester, Anne Timmons. F-Y R.
4. Laurens Co. Com. Act. Inc., Box 329, Laurens, S. C. 29360; Dir.,J.S. Bolick; H.S. Dir., Dolly Mae Hill; Teacher, Margaret McIntyre. S U.
5. Clarendon Co., Improvement Assoc., Harvin OIC Co. Mill St. Dr.520, Manning, S. C. 29102; Dir., Mrs. George Fuller; Teacher, Mrs. E. M. Keels. F-Y R.
6. Florence Co. OEO Committee, 162 Irby St., Florence, S. Car. 29501; Dir., Haskell M. Thomas; H.S. Dir., Thelma Brown; Teachers, Inez Thompson and Winifred Welch. F-Y U.
7. Greenwood-McCormick-Abbeville CA., Old Armory Bldg., Box 707,Greenwood, S. C. 29646; Dir., W. A. Pruitt; Coord. of Pl. & Tr., Rose Williams; Tester, W.R. Granter; Teachers, Miss Stratton and Mrs. Dowlin. F-Y U.
8. Sumter Co. E.O. Corp. Inc., P.O. Box 1251, Sumter, SC. 29150; Dir., Morgan B. Moyer; Teacher, Lenora Annette. F-Y R.
9. Com. Act. Prog., Pendleton, S. Car. 29697; Center Dir., Reba Williams; Teacher, Elsie Thompson. F-Y R.
10. Carolina Com. Actions, Inc., 220 E. Black St., Rock Hill, S.C. 29730; Dir., John R. Rumford; H.S. Dir., James Etheredge; Teacher, Theresa Massey. F-Y R.

SOUTH DAKOTA

1. Inter-Lakes Com. Act. Inc., Box 285, Madison, S. D. 57042; Dir., Elmer Biel; Dep.Dir.,Frances Redfield; Teacher, Mrs. Dave Ellis.FYU.

2. South Central S. Dak. Com. Act. Prog. Inc., Box 487, Lake Andes, S. D. 57356; Dir., Ed. Krell; H.S. Dir., Kenneth Wurtz; Teacher, Susan Keene, Parkston. S R.
3. Western So. Dak. Com. Act. Inc., 400 E. Main St., Rapid City, S.D. 57701; Dir., Frederick P. Whiteface; Teacher, Mrs. Deeds. F-Y R.
4. North East So. Dak. Com. Act. Prog., P. O. Box D, Sisseton, S. D. 57262; Tri-Co.H.S. Adm. Supv., Betty J. Hagen; Teacher, E.Odland.SR.

TENNESSEE

1. North Cumberland CAC Inc., Box 61, Jacksboro, Tenn. 37757; Dir., Randall Wortley; Teacher, Lois Tidwell, Wartburg. F-Y R.
2. Elk and Duck Rivers Com. Assn., 414 N. Elk Ave., Fayetteville, Tenn. 37334; Dir., W. Mark Whitaker; Ctr.Dir., Reba Williams. F-Y U.
3. Knox Co. Com. Act. Com., 318 Winona St., Knoxville, Tenn. 37917; Dir., T. L. Ross; Teacher, Miriam Lawhon. F-Y R.
4. War on Poverty, Memphis & Shelby Co., 97 N. 3rd St., Memphis, Tenn. 38102; Dir., Washington Butler, Jr.; Teacher, Bernice Spratlen. F-YR.
5. Douglas Cherokee Ec. Opp., 225 E. 6th St. N., Morristown, Tenn. 37814; Dir., Gordon Acuff; Teacher, E. Hannon, New Port. F-Y U.
6. Jackson City Sch. System, City Hall Bldg., Jackson, Tenn. 38301; Supt., Fred Stanley; CAP Dir., John Morris; Teacher, Bettye Morris.SU.
7. Milan City Sch. System, 121 College St., Milan, Tenn. 38358; Supt., Milton Mayo; Teacher, Mrs. Martin Alexander. S U.
8. Clarksville-Montgomery Co. Sch. Syst.,1209 Madison St., Clarksville, Tenn. 37040; Supt., Wm. H. Sanford. S. U.

TEXAS

1. Mary Bailey Day Care Center, Second and Timber, Georgetown, Texas.FYU
2. Potter-Randall CAC, 1900 W. Ninth St., Amarillo, Texas 79102; Dir., Argus A. Burnet; Teachers: Annabelle and Beverly Turner. F-Y U.
3. Jefferson Co. Ec. Opp. Comm., 650 Main St., Beaumont, Texas 77701; Dir., James Hendricks; Teacher, Joyce Kohler, North Side F-Y U.
4. Cameron Co. Com. Projects Inc., 404 Security Bldg., Brownsville, Texas 78520; Dir., R.A. Ramon; Dir., Mr. Toeller, La Feria; Teacher, Mariana Esparza. S R.
5. Central Texas Opp. Inc., P. O. Box 882, 117 W. St., Coleman, Texas 76834; Dir., A. E. Lamb; Teacher, Helen T. Egger, Brownwood. F-Y U.
6. Harris Co. Com. Act. Assn., 6300 Bowling Green, Houston, Texas 77021; Dir., F. L. Williams; Ch. Dev. Spec., Doris Anderson; Teachers, Katie Davis and Virginia Hawkins. F-Y U.
7. *Comm.Cou. of Brooks Jim Hogg and Zapata Cos., P.O. Box 222, Falfurrias, Texas 78355; Dir., Manuel Lunoff, Jr.; Teachers: Miss Olivarez, J.B. Gonzalez, A. Gonzalez, Mrs. Lopez, Miss Ramirez, M.M. Vela, Miss Salinas, L. Garza, Hebbronville; Mrs. Emma Uribe, Mrs. Elia Uribe, Miss Rathnell, Mrs. Flores, Mrs.Rubio, Mrs. Sheeran, Zapata. S U and S R.
8. Com. Act. Board in Lubbock Co., Inc.1616 19th St., Lubbock, Texas 79401; Dir., D.M. McElroy; H.S. Dir., Warner Sims; El. Coun. & Psych.-Tester, Louise Allison. S U.
9. Harrison-Panola Com. Act. Assn. Inc., P. O. Box 1343, Marshall, Texas 75670; Dir., Harold M. Wilson; DCC Coord., Elizabeth Porter; Teacher, Mrs. J. P. Jones. F-Y R.
10. Assoc. City-Co. Ec. Dev. Corp of Hidalgo Co., Box 36, 314 S. Closner, Edinburg, Texas 78539; Delia Garcia, Soc.Serv.Coord.; Teacher, Leocadia Costillo, Elsa. F-Y R.

11. Starr Co. Com. Act. Counc., 420 E. Main St., Box 14, Rio Grande City, Texas 78582; Dir., Francisco G. Zarate; Soc.Serv.Coord., Elma O. Garza; Teachers: Elia Munoz, Marianela Sanchez, Mrs. J. Smalley, M.H. Guillen. S. U.
12. Ec. Opp. Dev. Corp. San Antonio-Bexar Co., P. O. Box 9326, San Antonio, Texas 78204; Dir., Jose Lucero; Tester, Marilyn Goff; Teacher, Cora Smith, Sutton and Mirasol Day Care Centers. F-Y U.
13. San Patricio Co. Comm. Youth Edu., Job Opportunities, Courthouse, Sinton, Texas 78387; Dir., Humberto Chavana; Teacher, Susan Edwards, Odem School. F-Y R.

UTAH

1. Com. Act. Prog. Ec. Opp. Salt Lake Area, 116 So. 5th St. E., Salt Lake City, Utah 84115; Dir., Miss Lorraine Cook; Tester, Dr. R. Tongas; Teacher, Pat Eager. F-Y U.
2. Southeastern Utah CAP, 220 E. 1st North, Price, Utah 84501; Dir., Harry J. Schultz; Teacher, Nadine Leonard. F-Y U.

VERMONT

1. Champlain Valley OEO Inc., Burlington, Vermont; Teacher-Director, Marjorie Stebbins, Richmond Center 05477. F-Y R.
2. S.E. Vermont CAA Inc., Bridge St., Bellows Falls, Vermont 05101; Dir., David O'Neil; H.S. Dir., L. Carrier; Teacher, L. O'Neil.F-Y U.
3. Orleans Co. Counc. Soc. Agencies, Inc., 10 Main St., Newport, Vermont (Com. Act. for Northeast Kingdom); Dir., Thomas J. Hahn; Dir., DCC, Vernon Clogston, St. Mark's Day Care Center. F-Y R.

VIRGINIA

1. * Charlottesville and Albemarle Com. Act., Rm. 112, Co. Of. Bldg., 800 Concord Ave., Charlottesville, Va. 22901; Dir., Jay Morrell; Projects Coord., Suzanne Micaud. F-Y U, S U, and S R.
2. Montgomery Floyd Radford Craig Com. Act., P. O. Box 332, Christiansburg, Va. 24073; Dir., George W. Dalley; Cord. of Serv., Beverly Braden; Psych.-Tester, J. T. Bridge, Radford; B.D. Hayden. S U & SR.
3. Buchanan Dickerson Rural Dev. Corp., Grundy, Va.; Ed. Dir., Agnes M. Fields; Teachers, Virginia Ashby, Ann Ratliff. S R.
4. Carroll-Grayson-Galax Dev. Inc., P.O. Box 853, Galax, Va. 24333; Asst. H.S. Dir., Frank Hawks; Exec. Dir., Tom E. Hawks; Lansburg Center Dir., Rudolph Lyons. S R.
5. Lee Co. Comm. Act., P. O. Box 26, Jonesville, Va. 24263; Dir., James B. Faulks; Asst.Dir., Ida Pendleton; Teacher,Louise Wade.F-YR.
6. Richmond Com. Act. Prog. Inc., 2600 Idelwood Ave., Richmond, Va. 23320; Dir., Weston Hare; DC Soc.Wkr.,Viola Anderson. F-Y U.
7. Wythe-Bland-Smith-Pulaski Dev. Corp., Mountain CAP, Box 65, Wytheville, Va. 24382; Dir., Howard Chitwood; Teacher, Mrs. Rash. F-Y R.

WASHINGTON

1. Clallam-Jefferson Co. CAC, P. O. Box 553, Port Townsend, Wash.98368; Dir., Robert N. MacDicken; Port Angeles Ctr. 98362; Dir., R. Lang; Teacher, Mrs. Lois Larsen. S U.
2. Seattle-King Cnty. Ec. Opp. Bd. Inc.,611 Municipal Bldg., Seattle Wash., 98104; Dir., Ulysses Rowell, Jr., Ed. Dir.,Margaret Bland.SU.
3. Tacoma-Pierce Co. Opp. Dev. Inc., P.O. Box 165, Tacoma, Wash., 98401; Dir. W. G. Scline; H.S. Dir., James Robertson; Teachers, Annette Muklin and Margaret Rehyner. F-Y R.

4. Ec. Opp. Com. of Clark Co., 205 E. 11th St., Vancouver, Wash., 98660; Dir., Sumner M. Sharpe. F-Y R.
5. Sumner Sch. Dist. #320, 1625 Main St., Sumner, Wash., 98390; Cur. Dir., Dr. Robert Patterson; Psych.-Tester, Dale Gentry; Teachers, Mrs. Barclay, Mrs. Meecham, L. Staeheli, Ed. Eval. S R.

WEST VIRGINIA

1. AAY Com. Dev. Inc., P. O. Box 3228 Canawha CTOV, Charleston, W.Va.; Dir., Mrs. Sylvia Parker, Sissonville Center 25320. F-Y R.
2. North-Central West Va. CAA Inc., 211 Adams, Fairmont, W. Va. 26554; Dir., J.J. Straight, W. Grafton El. Sch. Ctr. 26354. F-Y U.
3. Eastern W. Va. Com. Act. Inc., Municipal Bldg., Moorefield, W.Va. 26726; Pres. Sterling Method; H. S. Coord., Nellie Leatherman; Teacher, Mrs. Jean Zirk. S R.
4. * Summers Co. Ec. Opp. Assoc., Drawer J., Hinton, W. Va.; Dir., Joe William Hatfield; H. S. Directors, Flora Bennett and Joe Hicks; Teachers: Mildred Gwinn, Danese Haynes, Juanita Basham, Edith Goode, Mae Dodd, Mrs. Laslo, and Mrs. Bowens. S R.

WISCONSIN

1. Menominee Co. CAC, Court House, Keshena, Wisc. 54135; Dir., Richard R. Dodge; H. S. Dir., Clyde Atwood; Teachers, Marline Voight and Barbara Baker. S R.
2. United Migrant Opp. Services, Inc., 524 W. National Ave., Milwaukee, Wisc., 53186; Dir., Frank Mueller; Day Care Proj. Sup., Margaret Balkman. F-Y U.
3. Wood Co. Com. Act. Org. Inc. WCCA, P. O. Box 126, Pittsville, Wisc. 54466; Dir., Neil Rasussen; Teacher, Minne Sitenga, Cranmoor. F-Y R.
4. Dane County Com. Act. Comm., 224 Washington Ave., Madison, Wisc. 53703; Dir., Father St. John; Teacher, Mary Beth Negro, Monona.F-YU.
5. Comm. Rel.-Soc. Dev. Com. in Milwaukee County, 161 W. Wisconsin Ave., Milwaukee, Wisc. 53203; Dir., Frank Steggert; Tester, Sister M. Patricia Ann; Teachers, C. Saleska and Olga Schwartz. F-Y U.
6. Racine Co. Com. Act. Prog. Comm. 7th and Lake Streets, Racine, Wisc., 53403; Dir., Mrs. Vivian Newton; Head Start Dir., Dawn E. Klofton. S U.

WYOMING

1. Snowy Range CA Agency, Inc., 154½ N. Cedar, Laramie, Wyoming 82070; Dir., Al Littler; Head Start Dir., G. S. Gustafson, Washington School; Teacher, June Vialparido. S U.
2. North Western Comm. Act. Prog., Box 666, Thermopolis, Wyoming 82443; Dir., H.P. Christiansen; Teacher, Mrs. Marian Webster, Worland; Head Start Dir., Jim J. Argeris. F-Y R.

WASHINGTON, D.C.

1. United Planning Org. of the National Capital Area, 1100 Vermont Ave., N. W., Washington, D.C. 20005p Virginia Morris, Coordinator Pre-School/Day Care Programs; Teacher, Bettie Crawford. S U.

NOTE: THE ABBREVIATIONS FOLLOWING EACH INDIVIDUAL ENTRY IDENTIFY EACH AS FULL-YEAR (F-Y) OR SUMMER (S) AND URBAN (U) OR RURAL (R).

APPENDIX G

WALKER READINESS TEST FOR DISADVANTAGED PRE-SCHOOL CHILDREN

FORM A

Dr. Wanda Walker
Professor of Psychology
Northwest Missouri State College
Maryville, Missouri 64468

DIRECTIONS FOR ADMINISTERING THE TEST

For best results, take the child to a room where you will have his undivided attention and explain that you are going to play a new game with him. To avoid distraction, use a blank sheet of paper to keep covered all of the items except the one you are showing the child. Be sure that he understands directions, but do not help him with the test items. An example is given for each sub-test; it should be used to determine whether or not the child understands what is expected of him. Do not deviate from the instructions. When the child indicates his choice of answers, encircle on his answer sheet the capital letter which corresponds to his choice. Scoring may be done later with the scoring stencil provided with the test.

PART I: LIKENESSES OR SIMILARITIES (Items 1-25)

Specific instructions are given at the beginning of the sub-test. The test administrator should point first to the picture on the left, then to those on the right while asking the child to indicate which one is just like the one on the left.

PART II: DIFFERENCES (Items 26-40)

This sub-test has three different parts. Each part has its own directions at the top of the page. The first part, items 26-30, deals with the concept of size. The child is expected to select the largest one of the four pictures presented. The second part, items 31-35, deals with differences. Three of the pictures in each item are alike; the child is directed to select the one which is not like the others. The third part, items 36-40, deals with a more difficult concept. In each item, three of the pictures belong together; the child is asked to select the one which does not belong with the others.

PART III: NUMERICAL ANALOGIES (Items 41-45)

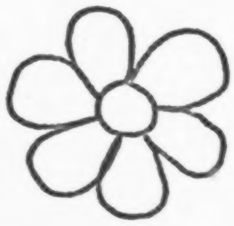
This sub-test deals with number concepts. Arrangements of pictures are different, but for each item one alternative contains the same number of objects as the one on the left. Pointing to the picture on the left, the test administrator should ask the child to indicate the picture on the right which contains the same number of objects.

PART IV: MISSING PARTS (Items 46-50)

In this sub-test the child is expected to choose from four pictures the one which will make a complete object of the picture on the left. The test administrator should point to the incomplete object on the left and ask the child to indicate the one on the right which belongs to it.

PART I: SIMILARITIES: Point to the picture on the left and say, "Now, show me the one over here" (gesture toward items on right) "that looks just like this one."
"Maintenant, montre-moi celui ici qui est exactement comme celui-ci."
"Ahora, muéstrame el aquí que es muy semejante a éste."

Ex.



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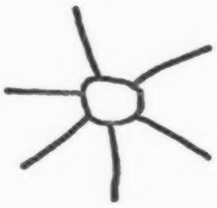

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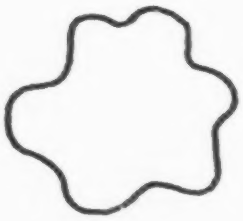

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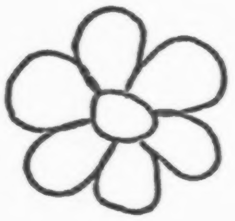

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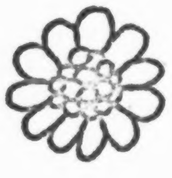

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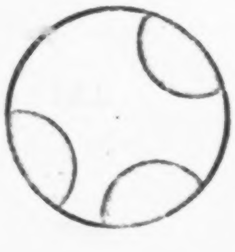

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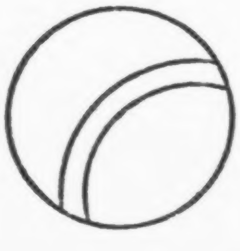

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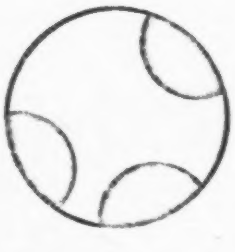

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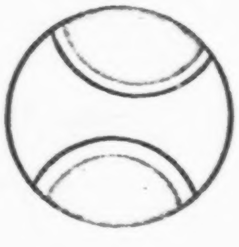

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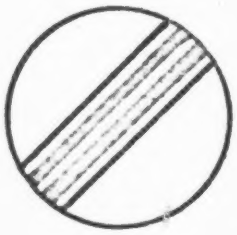

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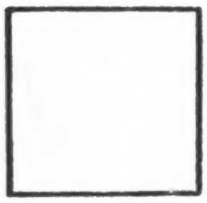
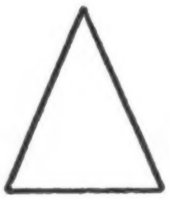
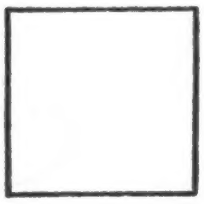
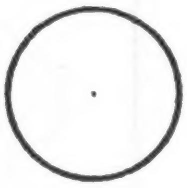
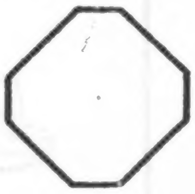
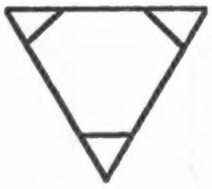
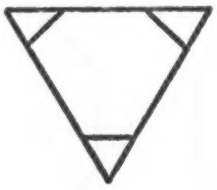
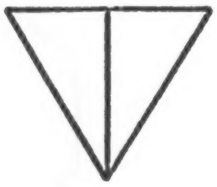
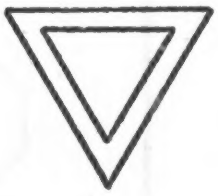
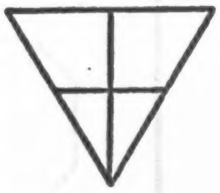
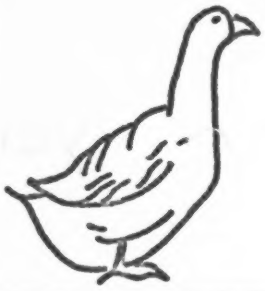
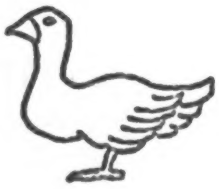
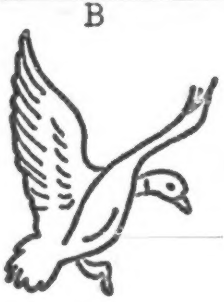
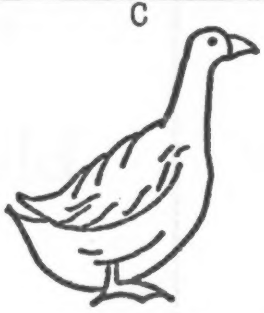
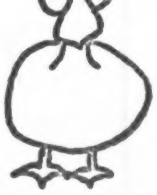
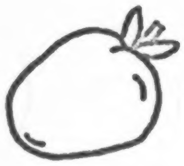
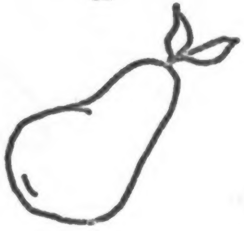
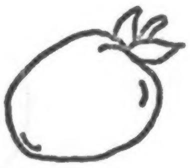
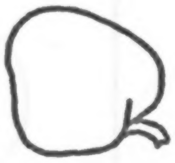
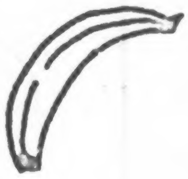
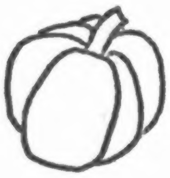
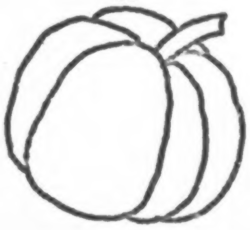
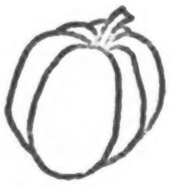
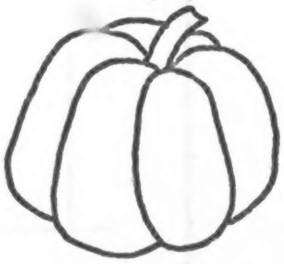
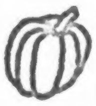
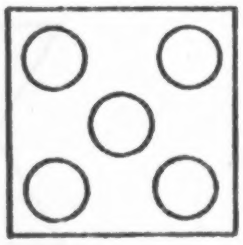
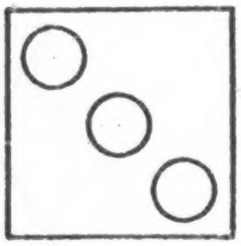
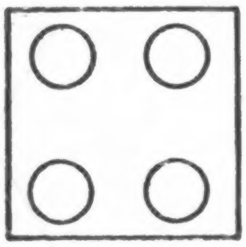
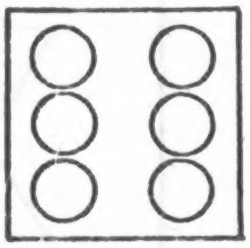
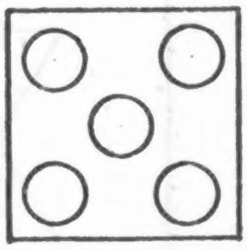
"Maintenant, montre-moi celui ici que est exactement comme celui-ci."
"Ahora, muéstrame el aquí que es muy semejante a éste."

2.		A 	B 	C 	D 
3.		A 	B 	C 	D 
4.		A 	B 	C 	D 
5.		A 	B 	C 	D 
6.		A 	B 	C 	D 
7.		A 	B 	C 	D 

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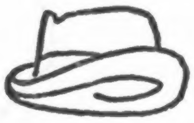
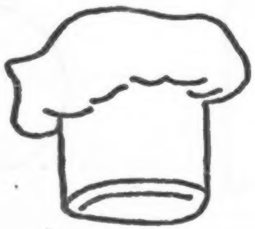
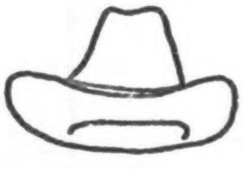
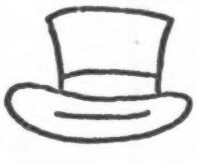
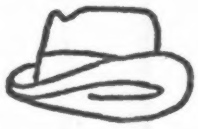
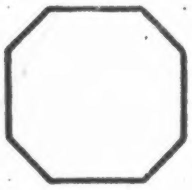
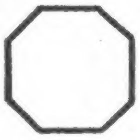
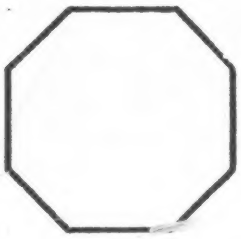
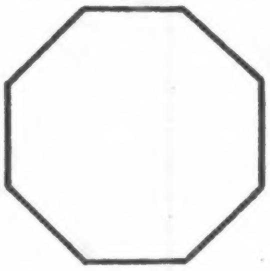
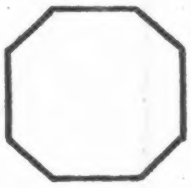
		A	B	C	D
8.					
9.					
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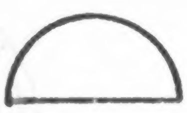
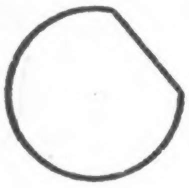
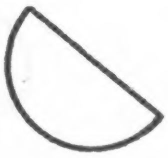
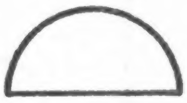
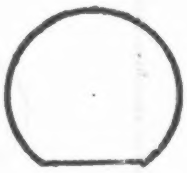
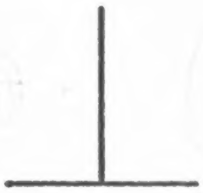
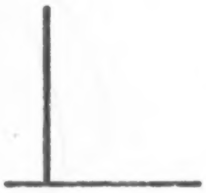
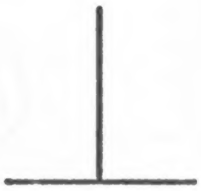
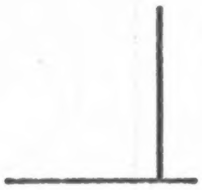
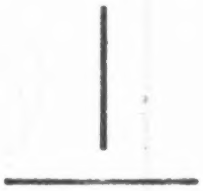
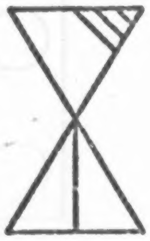
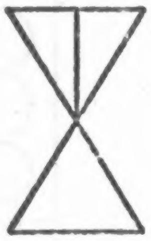
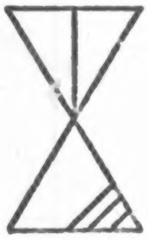
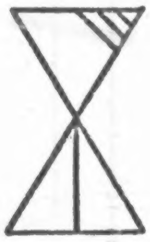
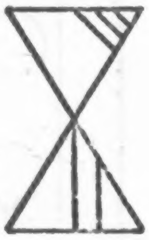
11.					
12.					
13.					

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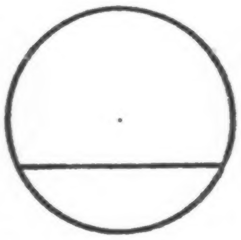
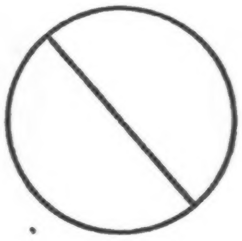
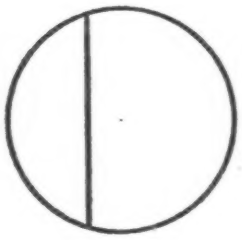
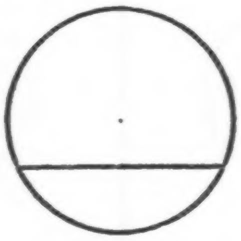
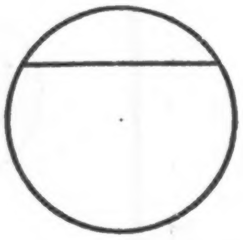
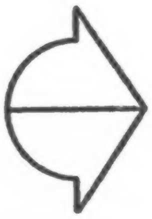
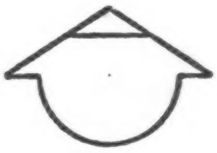
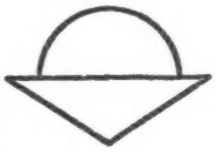
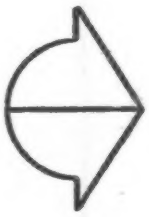
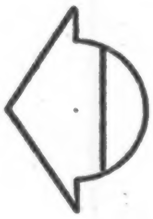
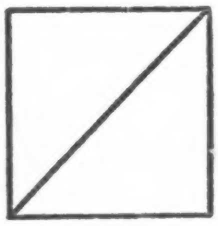
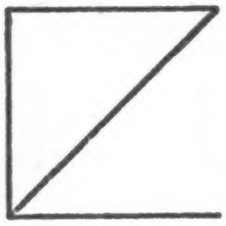
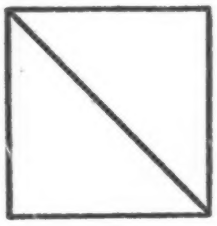
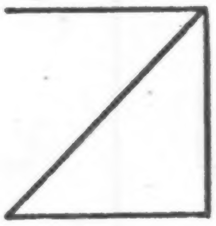
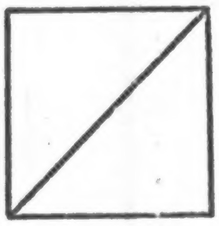
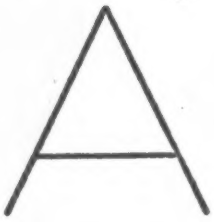
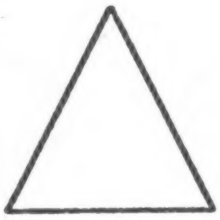
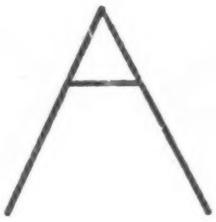
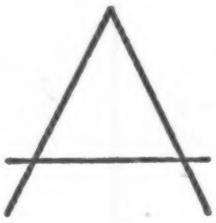
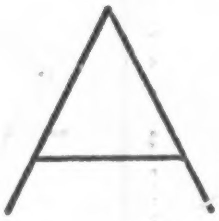
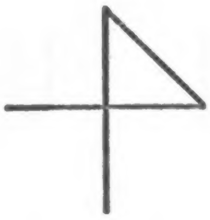
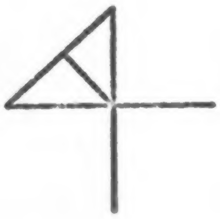
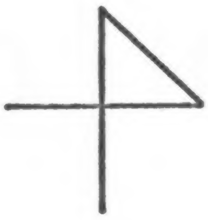
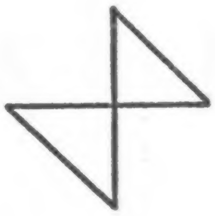
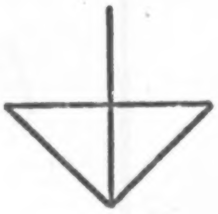
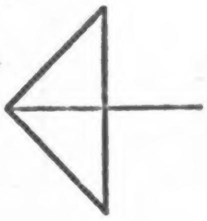
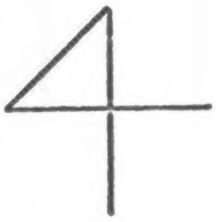
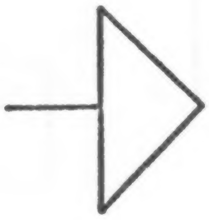
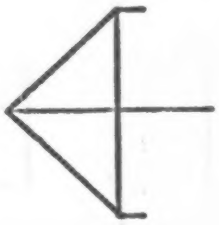
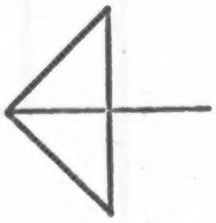
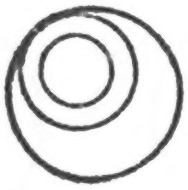
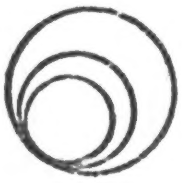
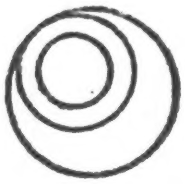
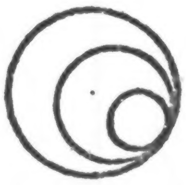
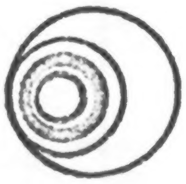
14.					
15.					
16.					
17.					
18.					
19.					

PART I: SIMILARITIES: Point to the picture on the left and say, "Now, show me the one over here" (gesture toward items on right) "that looks just like this one." "Maintenant, montre-moi celui ice que est exactement comme celui-ci." "Ahora, muéstrame el aquí que es muy semejante a éste."

		A	B	C	D
20.					
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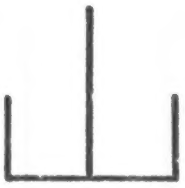
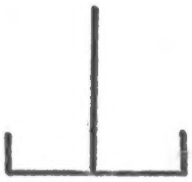
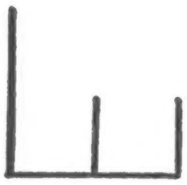
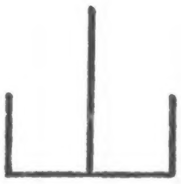
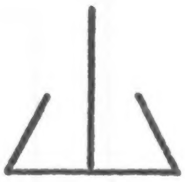
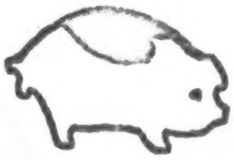
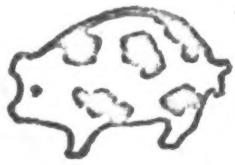
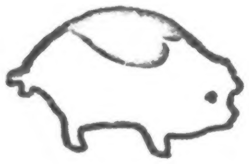
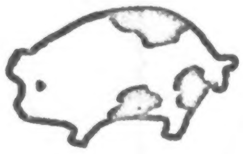
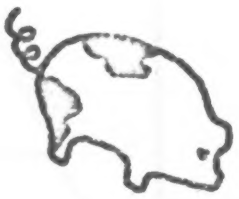
22.					
23.					
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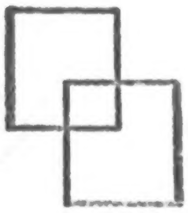
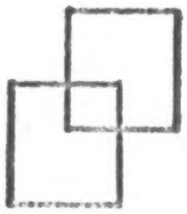
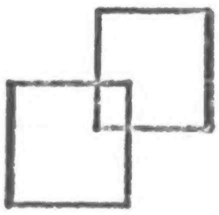
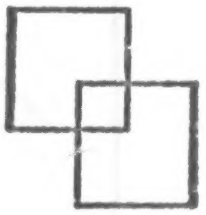
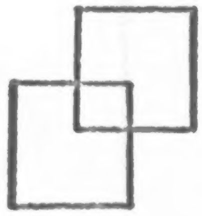
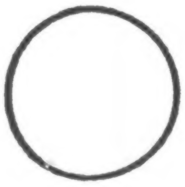
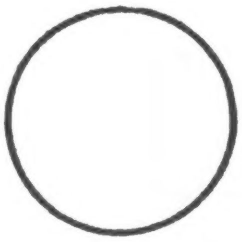
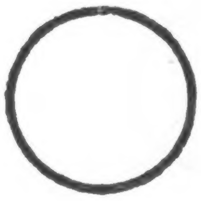
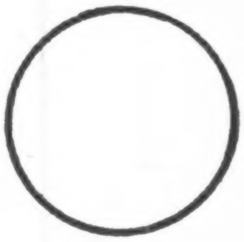
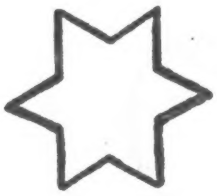
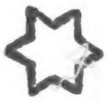
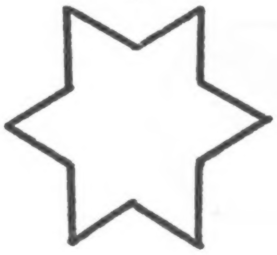
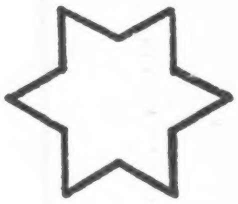
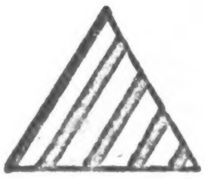
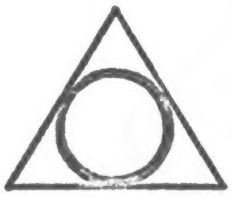
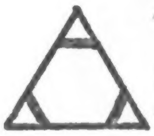
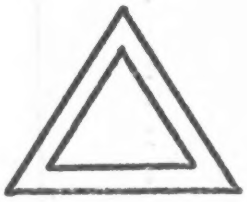
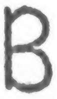
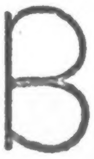
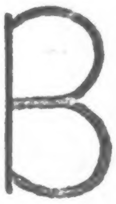
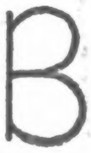
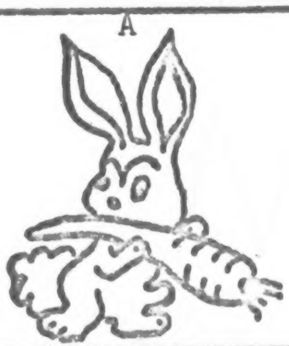
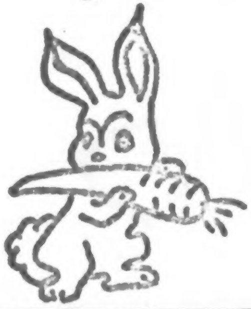
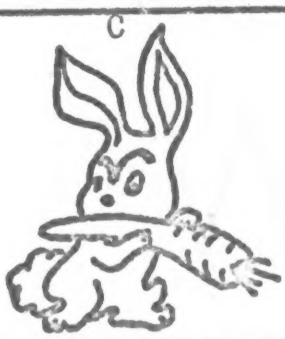
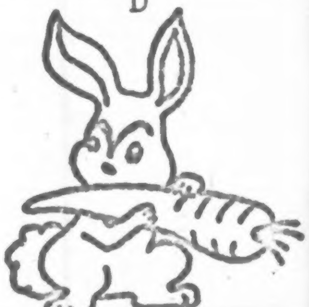
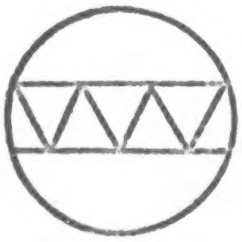
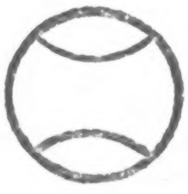
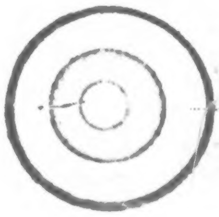
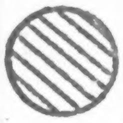
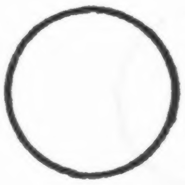
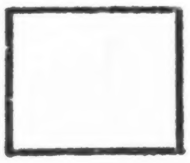
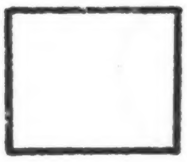
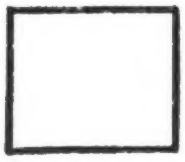
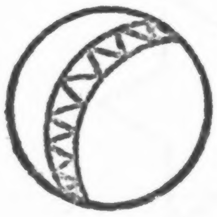
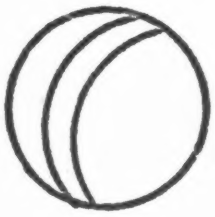
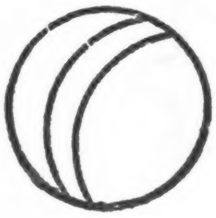
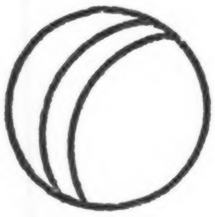
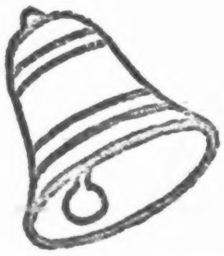
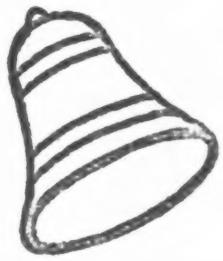
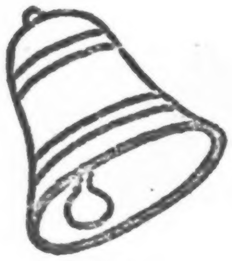
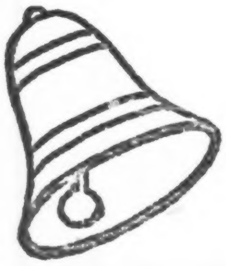
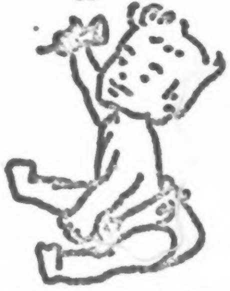
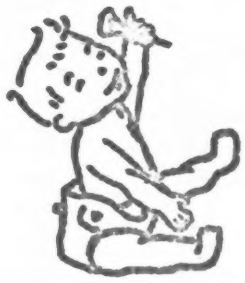
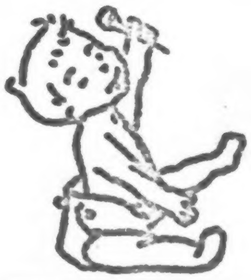
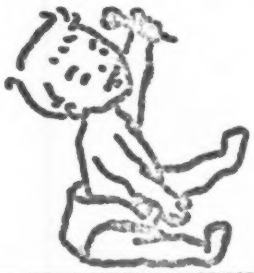
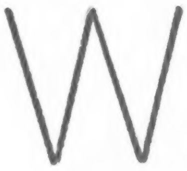
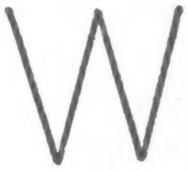
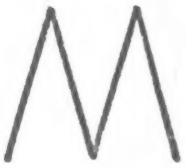
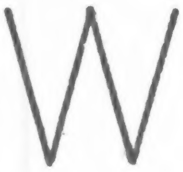
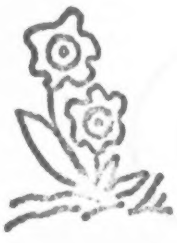
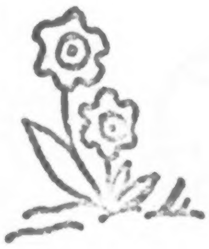
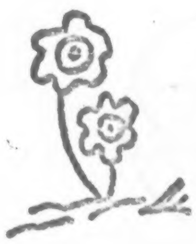
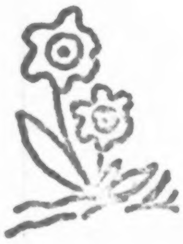
25.					

PART II: DIFFERENCES: Point to the pictures in each item and say, "Now, show me which one of these is the biggest one."
"Maintenant, montre-moi lequel de ceux-ci qui est le plus grand."
"Ahora, muéstrame cual de éstos que es el más grande."

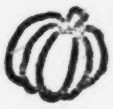
	A	B	C	D
Ex.				
26.				
27.				
28.				
29.				
30.				

PART II: DIFFERENCES: Point to the pictures in each item and say, "Now, show me which one of these does not look like the others."
"Maintenant, montre-moi lequel de ceux-ci qui n'est pas comme les autres."
"Ahora, muéstrame cual de éstos que no es semejante a los otros."

	A	B	C	D
Ex.				
31.				
32.				
33.				
34.				
35.				

PART II: DIFFERENCES: Point to the pictures in each item and say, "Three of these belong together. One does not belong. Show me which one does not belong with the others." "Trois de ceux-ci sont du même genre. Un ne l'est pas. Montre-moi lequel qui ne l'est pas." "Tres de éstos son de mismo género. Uno no lo es. Muéstrame el que no lo es."

Ex.

A


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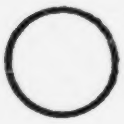

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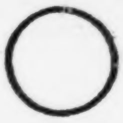

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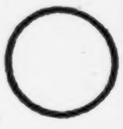

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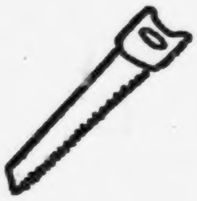
A


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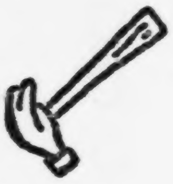

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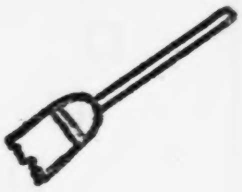

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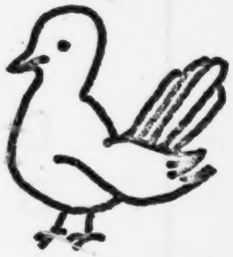

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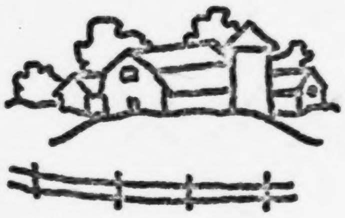

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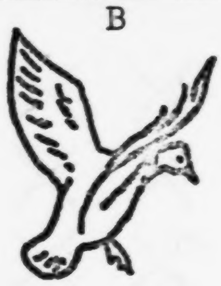

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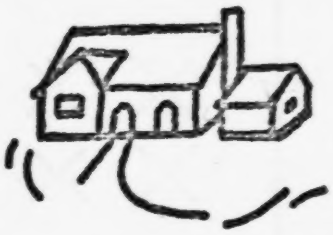

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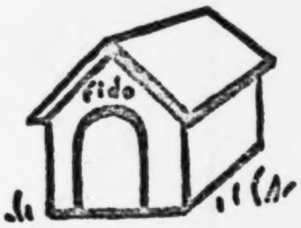

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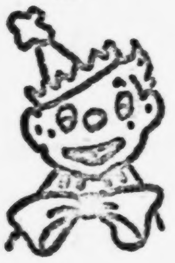

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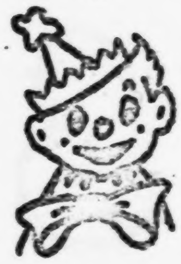

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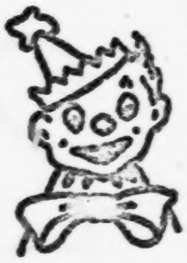

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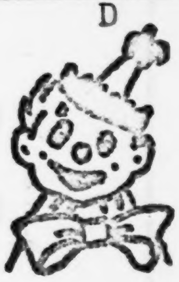

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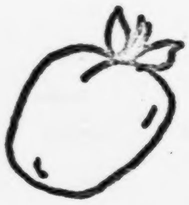
A


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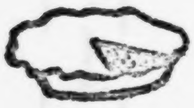

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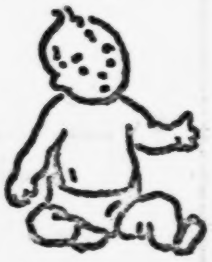

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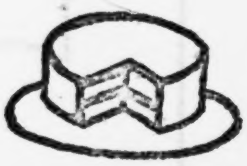

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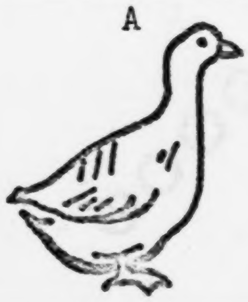
A


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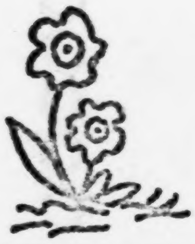

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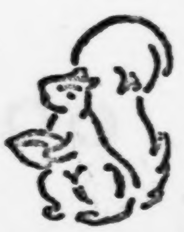

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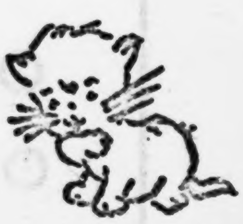
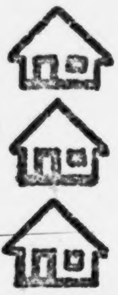
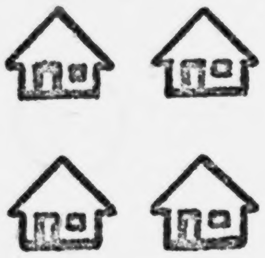
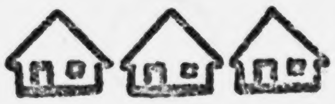
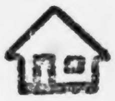
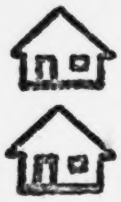
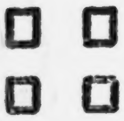
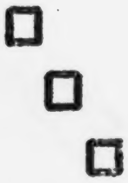
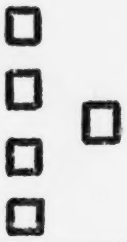
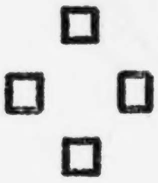
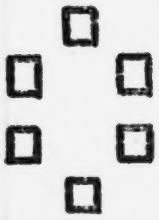
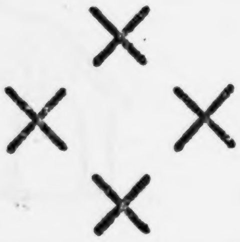
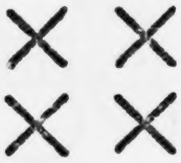
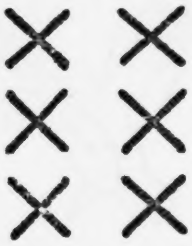
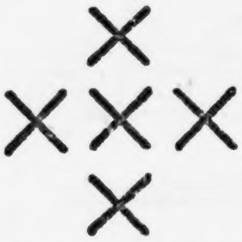
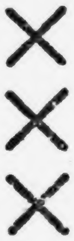
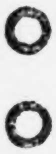
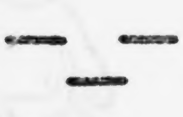
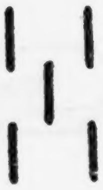
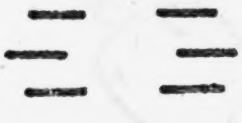
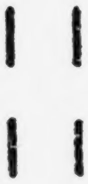
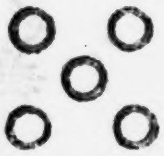
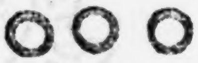
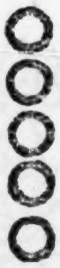
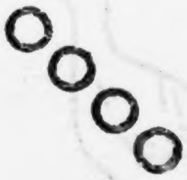
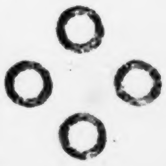


PART III: NUMERICAL ANALOGIES: Point to the picture on the left and say, "Now, show me the one over here" (gesture toward items on right) "that has the same number as this one."
"Maintenant, montre-moi celui ici qui a le même numéro que celui-ci."
"Ahora, muéstrame el aquí que tiene el mismo número que éste."

		A	B	C	D
Ex.					
41.					
42.					
43.		2	3	4	1
44.	5				
45.					

PART IV: MISSING PARTS: Point to the picture on the left and say, "Now, point to the one over here" (gesture toward items on right) "which belongs to this one."
"Maintenant, indique celui ici qui appartient à celui-ci."
"Ahora, señala el aquí que pertenece a éste."

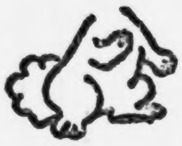
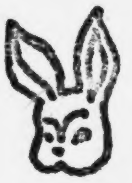
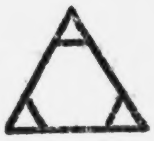
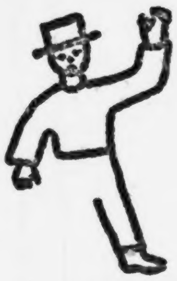
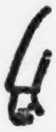
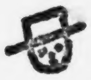
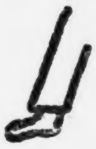
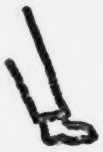
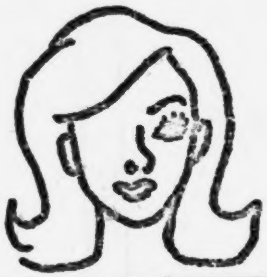
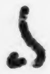
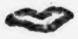
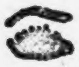
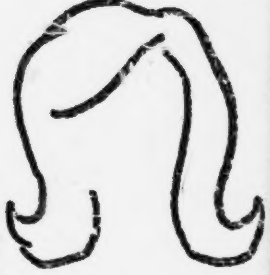
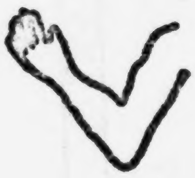
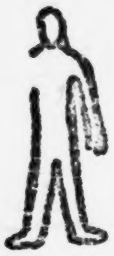
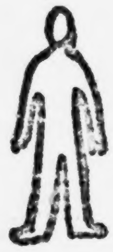
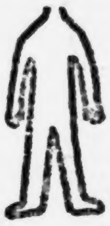
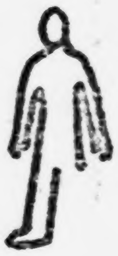
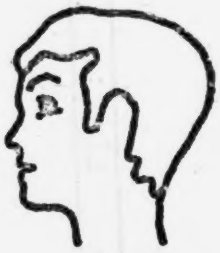
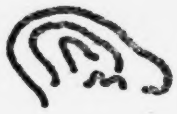
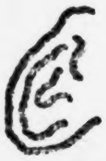
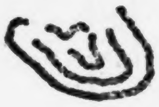
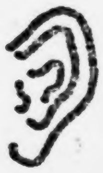
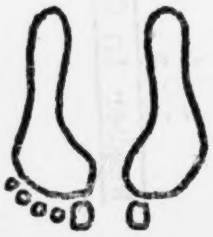
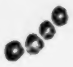
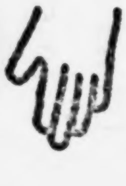
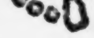
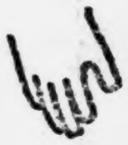
		A	B	C	D
Ex.					
46.					
47.					
48.					
49.					
50.					

TABLE A

MEAN, MEDIAN, Q_3, Q_1, Q, STANDARD DEVIATION, AND PERCENTILE RANKS FOR CHILDREN IN FORM A NORMING GROUP

	AGES							
Measurement	6-7 up	6-1:6-6	5-7:6-0	5-1:5-6	4-7:5-0	4-1:4-6	4-0 down	TOTAL
Mean	35.69	36.88	34.36	33.04	29.30	28.02	25.54	33.61
Median	35.89	37.37	33.65	34.32	30.24	27.50	25.25	35.45
Q_3	41.81	42.73	40.95	39.54	36.16	34.59	31.83	42.83
Q_1	30.55	31.42	28.71	27.23	24.77	21.70	19.83	28.49
Q	5.63	5.65	6.14	6.15	5.69	6.34	6.00	7.17
Stand. Dev.	7.97	7.97	8.48	8.49	8.22	8.64	8.05	8.61
Percentile Ranks (Class Intervals)								
49-51	99.84	99.57	99.47	99.94	99.99	99.99	99.94	99.93
46-48	96.24	95.84	97.61	98.50	99.74	99.61	99.94	98.01
43-45	89.04	86.25	91.00	94.19	97.76	98.43	99.94	92.34
40-42	78.00	73.69	80.45	85.56	91.91	93.31	98.55	82.89
37-39	64.32	58.86	68.85	74.81	85.64	88.98	97.16	71.96
34-36	53.04	46.09	56.09	63.00	76.35	83.86	90.22	60.45
31-33	37.68	32.98	42.63	50.75	64.49	71.26	81.89	47.58
28-30	24.72	21.32	30.39	37.63	51.24	61.42	69.40	35.10
25-27	15.36	14.49	19.95	25.75	36.97	50.00	62.46	24.48
22-24	9.36	7.45	12.53	17.31	23.82	38.58	45.30	15.72
19-21	4.56	4.00	7.48	10.56	14.87	24.02	31.92	9.48
16-18	2.88	1.93	3.13	5.25	8.00	14.57	19.43	4.83
13-15	.72	.35	1.68	2.13	3.78	5.12	8.33	2.01
10-12	.24	.21	.58	.56	1.46	2.76	5.55	.77
7- 9		.07	.17	.06	.34	.79	4.16	.21
4- 6		.07	.06		.17			.06
1- 3		.07						.015
Number in Group	416	1443	1715	1599	1163	254	72	6662

WALKER READINESS TEST FOR DISADVANTAGED PRE-SCHOOL CHILDREN

Form A ~~and B~~

ANSWER SHEET (Make No Marks on the Test Itself. Record all of the child's answers here.)

Child's Name____________________________ Name of Center____________________________

Child's Age____________________________ (years) (months) (birthdate)

Location of Center____________________________ (town) (state) (zip)

Child's Race____________________________ Population Density________________________ (rural or urban)

Child's Sex____________________________

Date of Test Administration________________ Name of Test Administrator________________

Official Capacity________________________

Child's Score________ Percentile Rank_____

PART I: SIMILARITIES

1. A B C D
2. A B C D
3. A B C D
4. A B C D
5. A B C D
6. A B C D
7. A B C D
8. A B C D
9. A B C D
10. A B C D
11. A B C D
12. A B C D
13. A B C D
14. A B C D
15. A B C D
16. A B C D
17. A B C D
18. A B C D
19. A B C D
20. A B C D
21. A B C D
22. A B C D
23. A B C D
24. A B C D
25. A B C D

PART II: DIFFERENCES

26. A B C D
27. A B C D
28. A B C D
29. A B C D
30. A B C D
31. A B C D
32. A B C D
33. A B C D
34. A B C D
35. A B C D
36. A B C D
37. A B C D
38. A B C D
39. A B C D
40. A B C D

PART III: NUMERICAL ANALOGIES

41. A B C D
42. A B C D
43. A B C D
44. A B C D
45. A B C D

PART IV: MISSING PARTS

46. A B C D
47. A B C D
48. A B C D
49. A B C D
50. A B C D

Please record below any unusual circumstances concerning the child or the situation which might affect the validity or reliability of the test.

WALKER READINESS TEST FOR DISADVANTAGED PRE-SCHOOL CHILDREN
Form A ~~and B~~

ANSWER SHEET (Make No Marks on the Test Itself. Record all of the child's answers here.)

Child's Name____________________ Name of Center____________________

Child's Age____________________ Location of Center____________________
(years) (months) (birthdate) (town) (state) (zip)

Child's Race____________________ Population Density____________________
(rural or urban)

Child's Sex____________________

Date of Test Administration________________ Name of Test Administrator________________

Official Capacity____________________

Child's Score__________ Percentile Rank_____

PART I: SIMILARITIES

1. A C D
2. A C D
3. B C D
4. A B D
5. A C D
6. A C D
7. A B C
8. A B C
9. A B C
10. A B C
11. A B D
12. A C D
13. A B D
14. A B D
15. A B D
16. A B C
17. A B C
18. A C D
19. A B C
20. A C D
21. A B D
22. A B D
23. A C D
24. A B D
25. A B D

PART II: DIFFERENCES

26. A B D
27. A B C
28. A B D
29. A B C
30. B C D
31. B C D
32. A C D
33. B C D
34. A B D
35. A B D
36. A B C
37. A C D
38. A B C
39. A B D
40. A C D

PART III: NUMERICAL ANALOGIES

41. A B D
42. B C D
43. B C D
44. A C D
45. A C D

PART IV: MISSING PARTS

46. A B D
47. A B D
48. B C D
49. A B C
50. B C D

Please record below any unusual circumstances concerning the child or the situation which might affect the validity or reliability of the test.

APPENDIX H

WALKER READINESS TEST FOR DISADVANTAGED PRE-SCHOOL CHILDREN

FORM B

Dr. Wanda Walker
Professor of Psychology
Northwest Missouri State College
Maryville, Missouri 64468

DIRECTIONS FOR ADMINISTERING THE TEST

For best results, take the child to a room where you will have his undivided attention and explain that you are going to play a new game with him. To avoid distraction, use a blank sheet of paper to keep covered all of the items except the one which you are showing the child. Be sure that he understands directions, but do not help him with the test items. An example is given for each sub-test; it should be used to determine whether or not the child understands what is expected of him. Do not deviate from the instructions. When the child indicates his choice of answers, encircle on his answer sheet the capital letter which corresponds to his choice. Scoring may be done later with the scoring stencil provided with the test.

PART I: LIKENESSES OR SIMILARITIES (Items 1-25)

Specific instructions are given at the beginning of the sub-test. The test administrator should point first to the picture on the left, then to those on the right while asking the child to indicate which one is just like the one on the left.

PART II: DIFFERENCES (Items 26-40)

This sub-test has three different parts. Each part has its own directions at the top of the page. The first part, items 26-30, deals with the concept of size. The child is expected to select the smallest one of the four pictures presented. The second part, items 31-35, deals with differences. Three of the pictures in each item are alike; the child is directed to select the one which is not like the others. The third part, items 36-40, deals with a more difficult concept. In each item, three of the pictures belong together; the child is asked to select the one which does not belong with the others.

PART III: NUMERICAL ANALOGIES (Items 41-45)

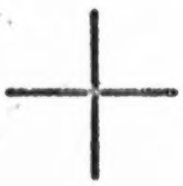
This sub-test deals with number concepts. Arrangements of pictures are different, but for each item one alternative contains the same number of objects as the one on the left. Pointing to the picture on the left, the test administrator should ask the child to indicate the picture on the right which contains the same number of objects.

PART IV: MISSING PARTS (Items 46-50)

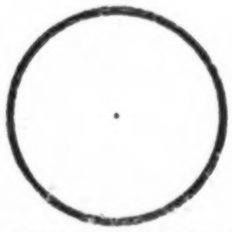
In this sub-test the child is expected to choose from four pictures the one which will make a complete object of the picture on the left. The test administrator should point to the incomplete object on the left and ask the child to indicate the one on the right which belongs to it.

PART I: SIMILARITIES: Point to the picture on the left and say, "Now, show me the one over here" (gesture toward items on right) "that looks just like this one."
"Maintenant, montre-moi celui ici qui est exactement comme celui-ci."
"Ahora, muéstrame el aquí que es muy semejante a éste."

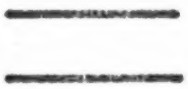
Ex.



A



B



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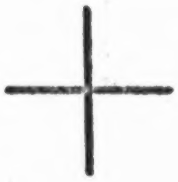
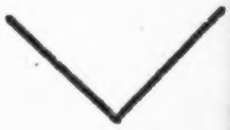
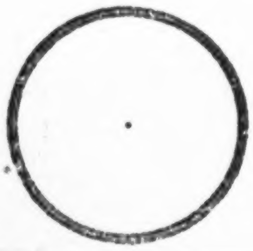


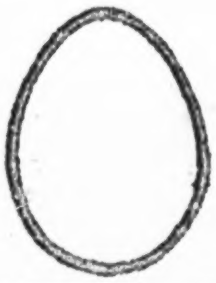
D



1.



A



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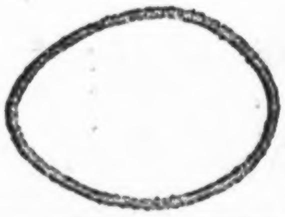
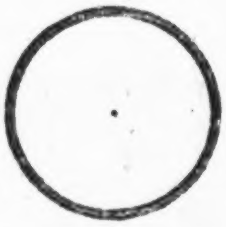
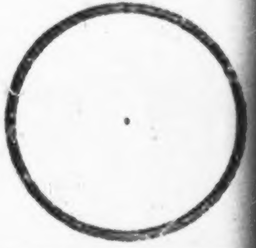


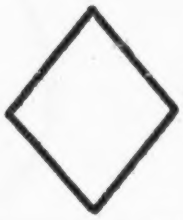
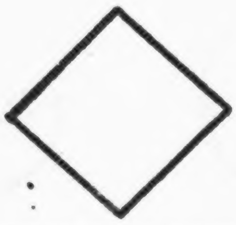
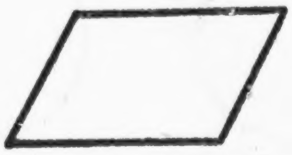
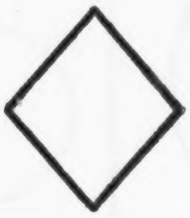
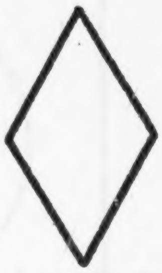
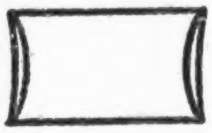
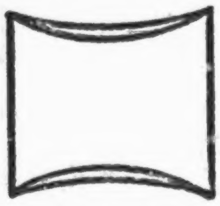
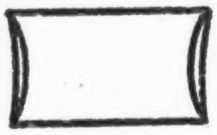
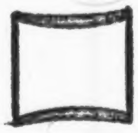
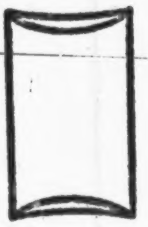
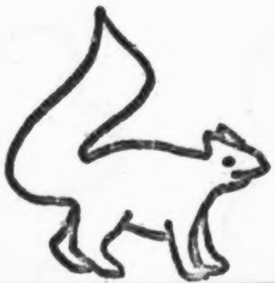
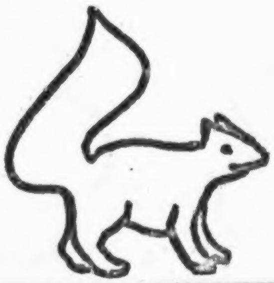
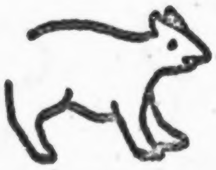
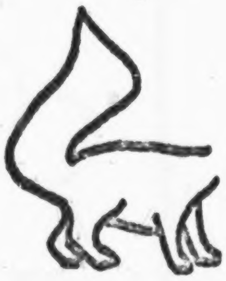
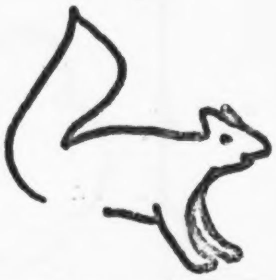
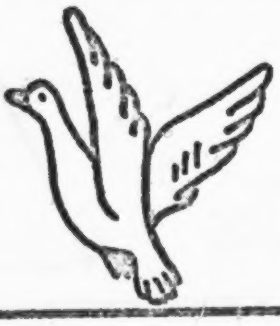
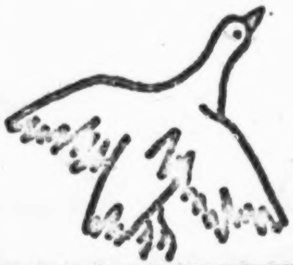
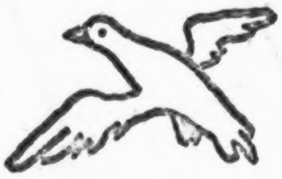
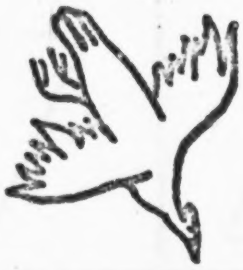
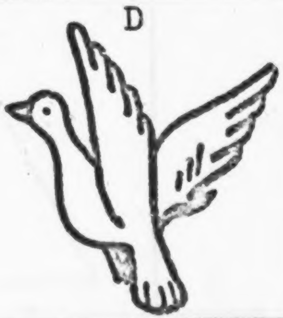
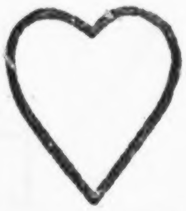
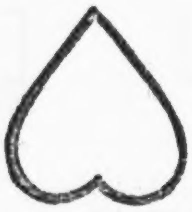
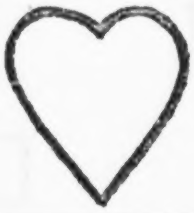
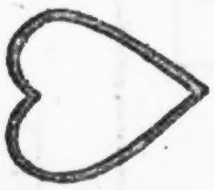
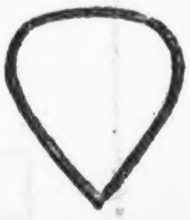
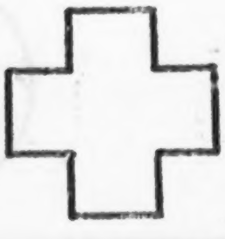
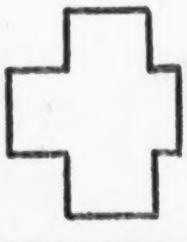
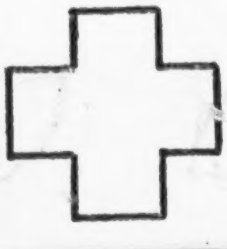
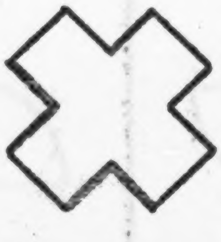
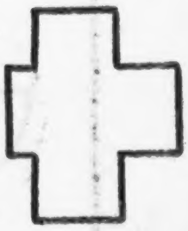
C



D



PART I: SIMILARITIES: Point to the picture on the left and say, "Now, show me the one over here"(gesture toward items on right) "that looks just like this one." "Maintenant, montre-moi celui ici que est exactement comme celui-ci." "Ahora, muéstrame el aquí que es muy semejante a éste."

		A	B	C	D
8.					
9.					
10.					
11.					
12.					
13.					

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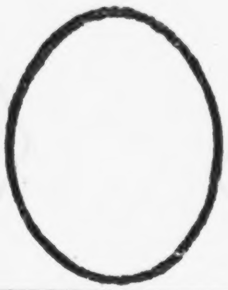
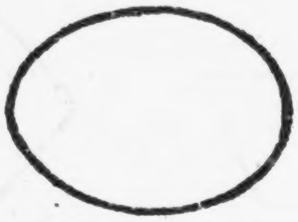
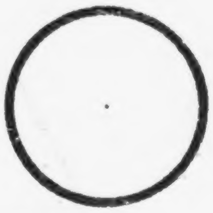
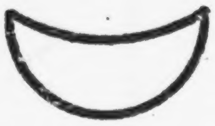
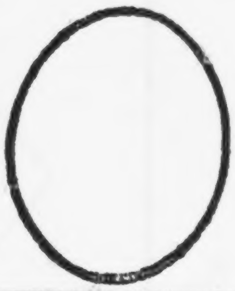
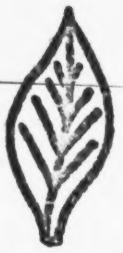
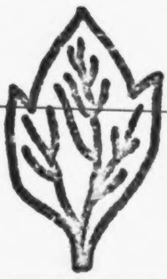
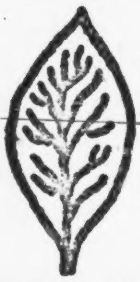
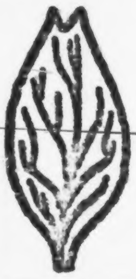
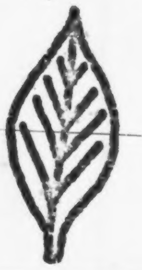
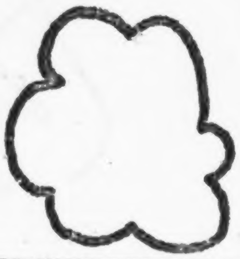
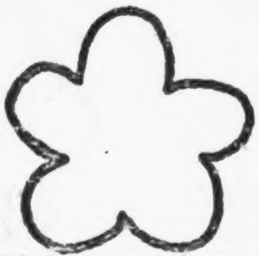
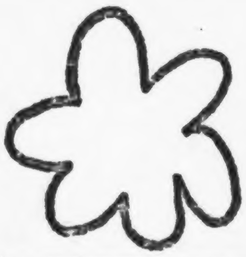
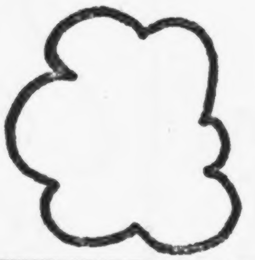
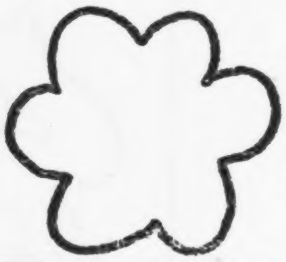
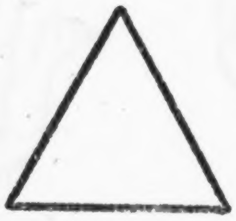
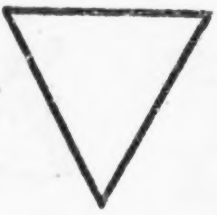
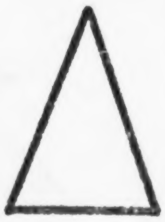
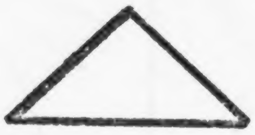
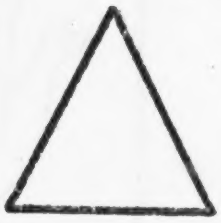
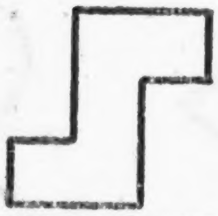
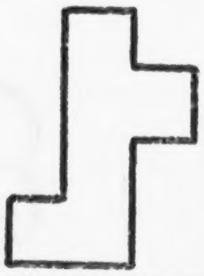
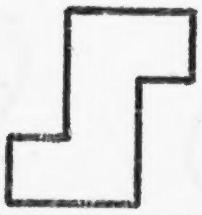
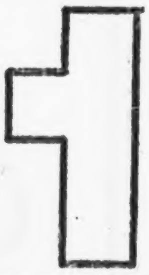
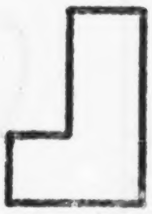
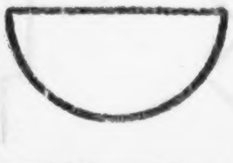
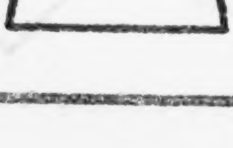
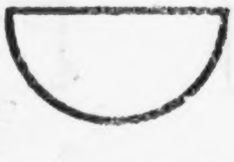
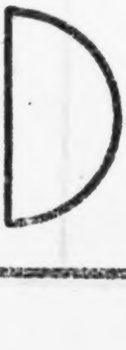
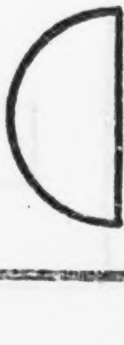
2.					
3.					
4.					
5.					
6.					
7.					

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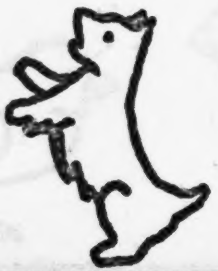
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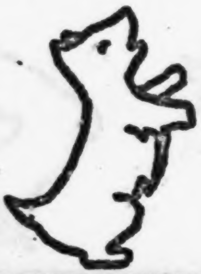
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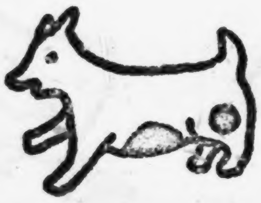
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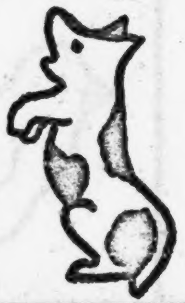
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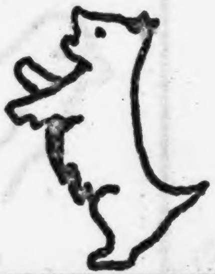

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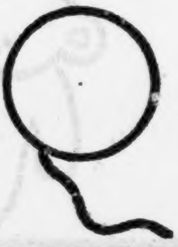
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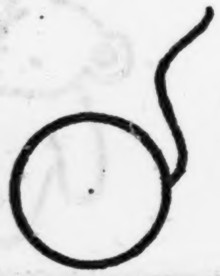
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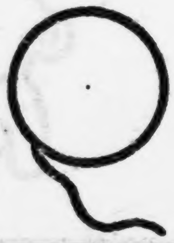
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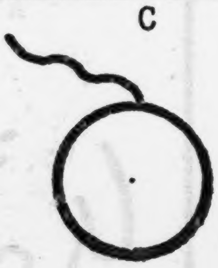
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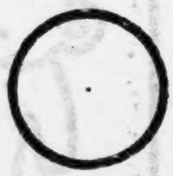

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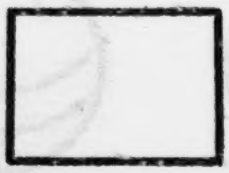
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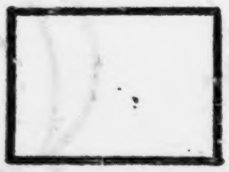
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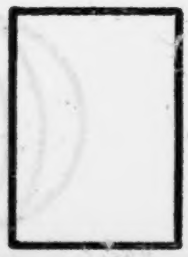
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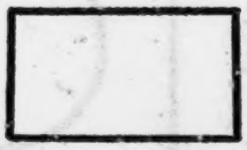
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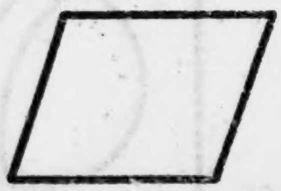

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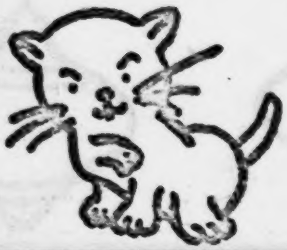
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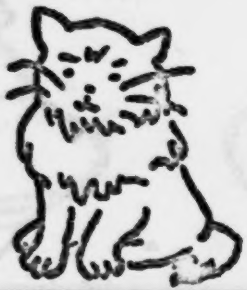
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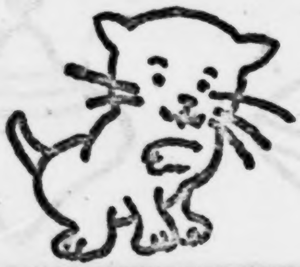
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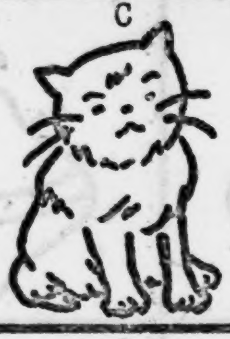
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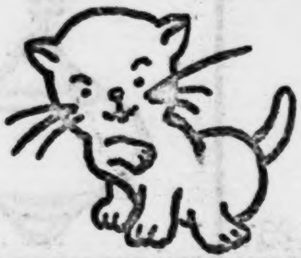

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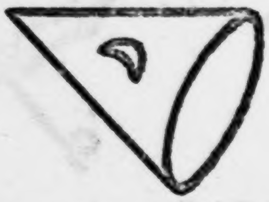
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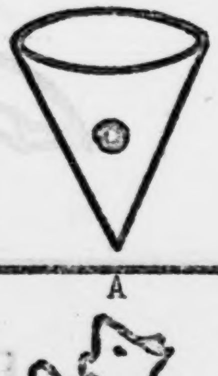
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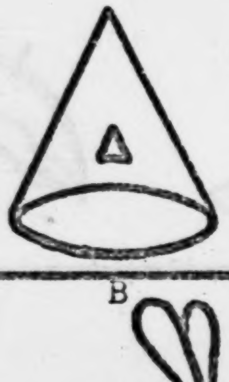
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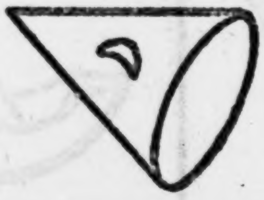
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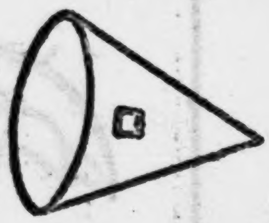

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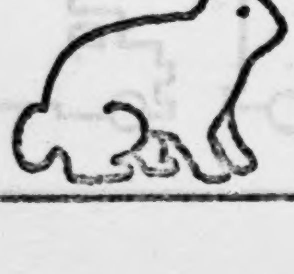
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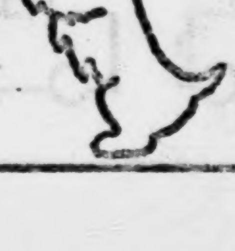
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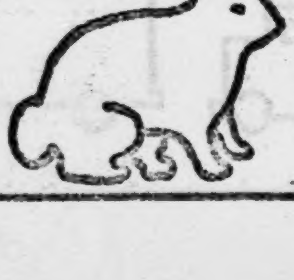
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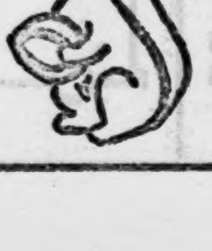
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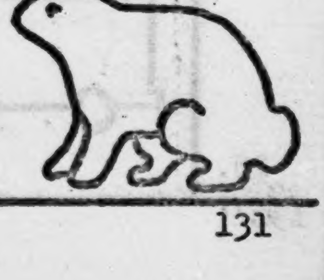
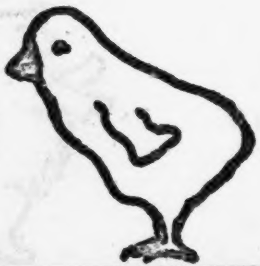
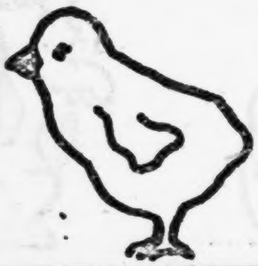
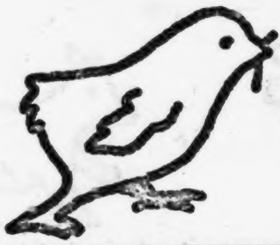
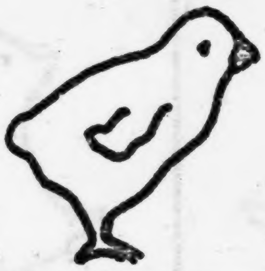
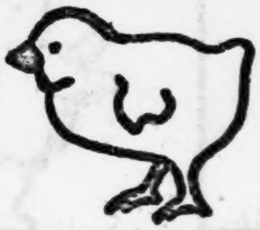
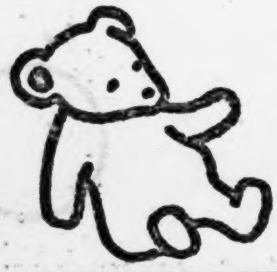
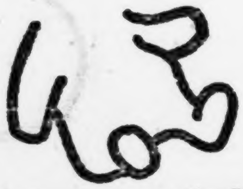
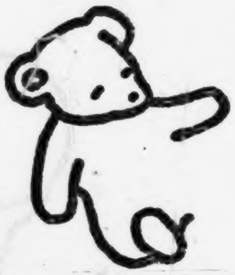
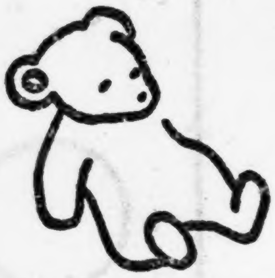
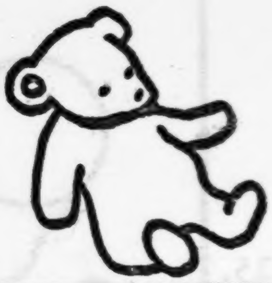
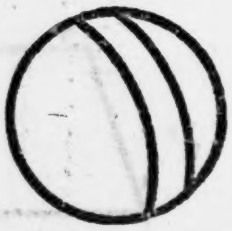
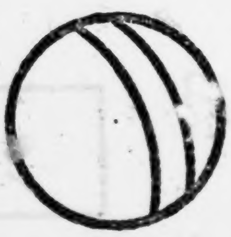
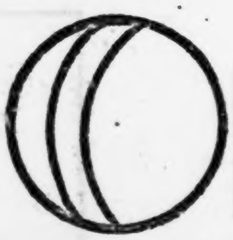
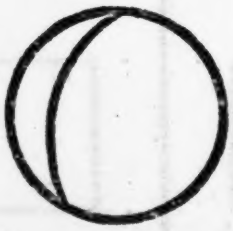
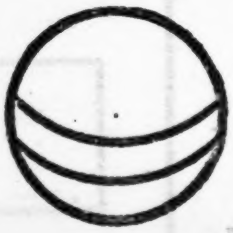
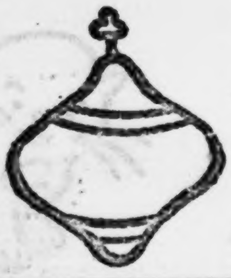
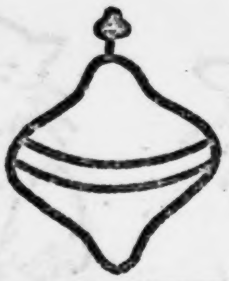
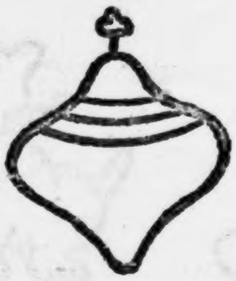
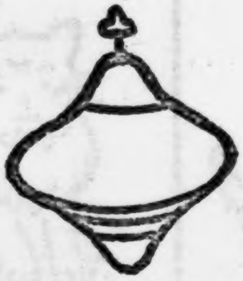
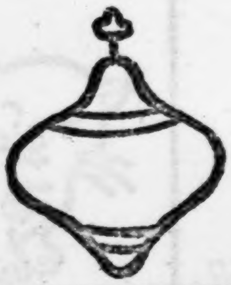
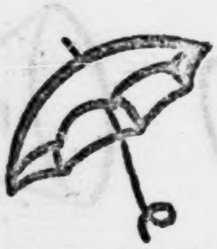
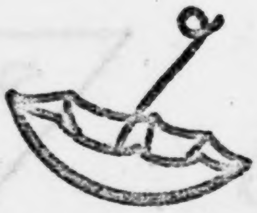
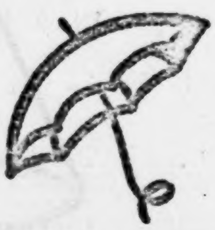
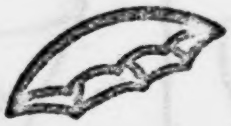
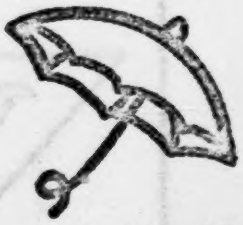
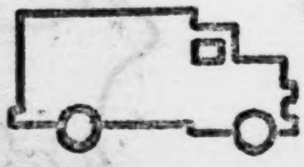
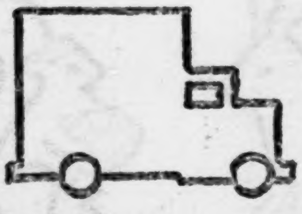
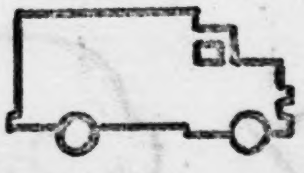
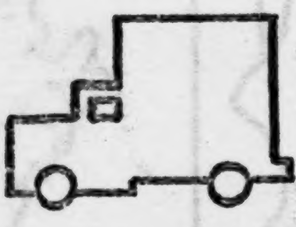
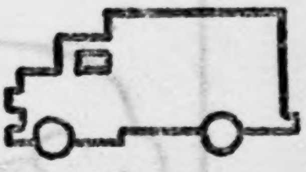
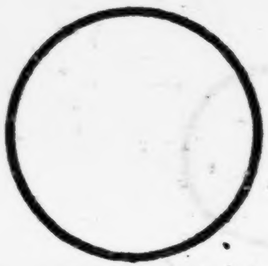
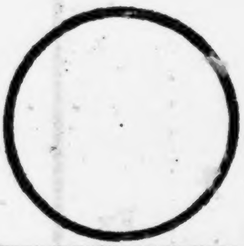
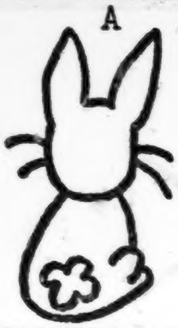
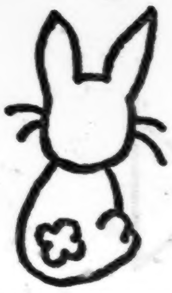
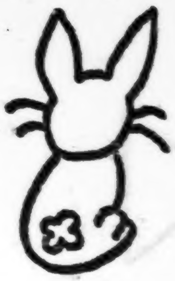
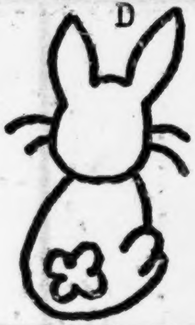
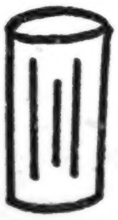
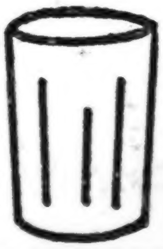
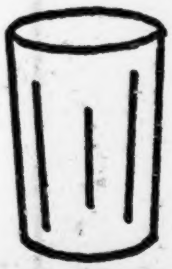
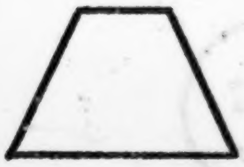
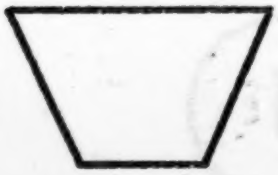
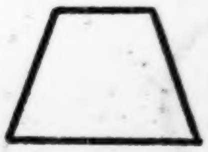
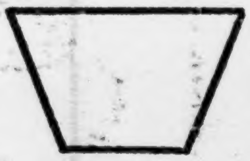
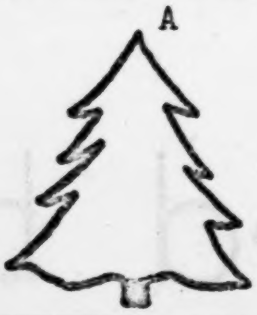
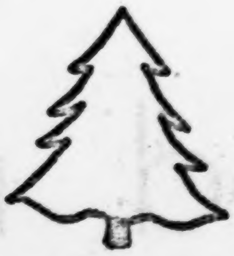
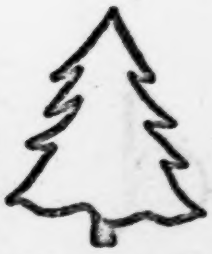
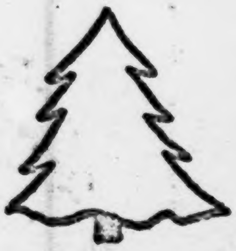
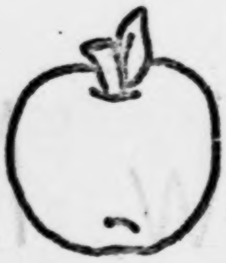
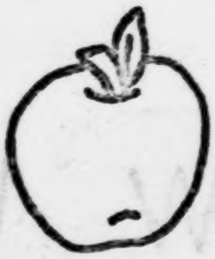
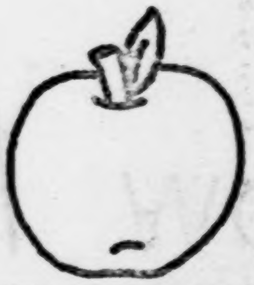
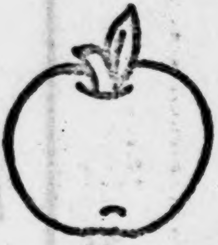


PART I: SIMILARITIES: Point to the picture on the left and say, "Now, show me the one over here" (gesture toward items on right) "that looks just like this one." "Maintenant, montre-moi celui ici que est exactement comme celui-ci." "Ahora, muéstrame el aquí que es muy semejante a éste."

20.		A 	B 	C 	D 
21.		A 	B 	C 	D 
22.		A 	B 	C 	D 
23.		A 	B 	C 	D 
24.		A 	B 	C 	D 
25.		A 	B 	C 	D 

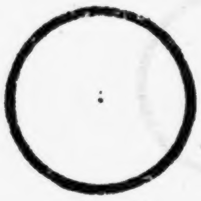
PART II: DIFFERENCES: Point to the pictures in each item and say, "Now, show me which one of these is the smallest one."
"Maintenant, montre-moi lequel de ceux-ci qui est le plus petit."
"Ahora, muéstrame cual de éstos que es el más pequeño."

	A	B	C	D
Ex.				
26.				
27.				
28.				
29.				
30.				

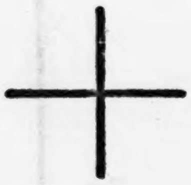
PART II: DIFFERENCES: Point to the pictures in each item and say, "Now, show me which one of these does not look like the others."
"Maintenant, montre-moi lequel de ceux-ci qui n'est pas comme les autres."
"Ahora, muéstrame cual de éstos que no es semejante a los otros."

Ex.

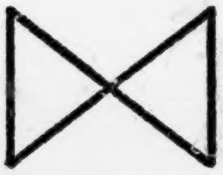
A

B


C

D


31.

A


B

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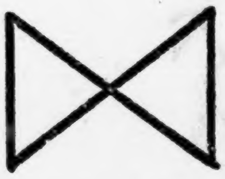

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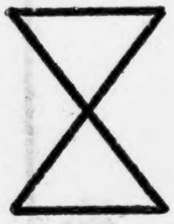
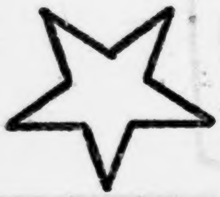


32.

A


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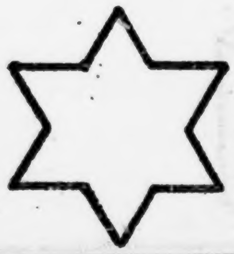

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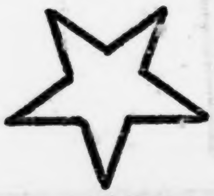
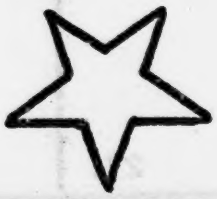


D


33.

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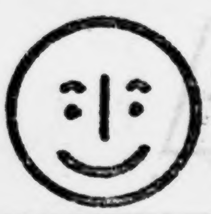

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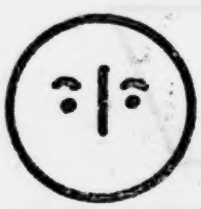

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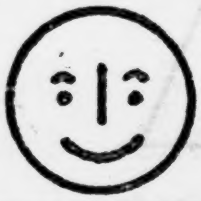

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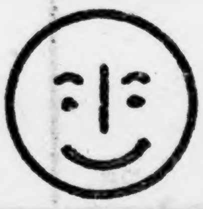


34.

A bed

B bed

C red

D bed

35.

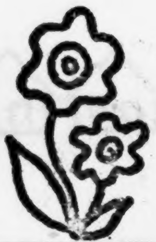
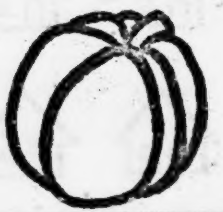
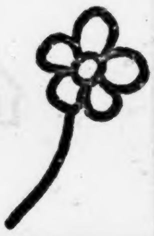
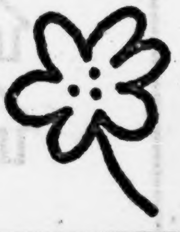
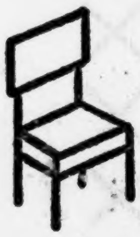
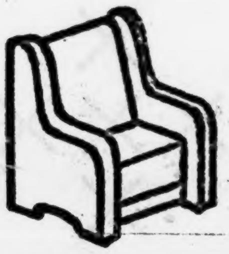
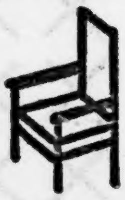
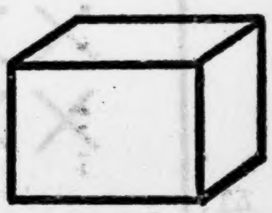
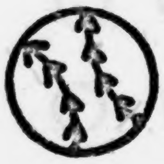
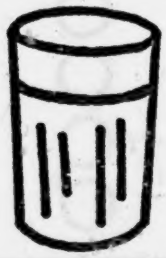
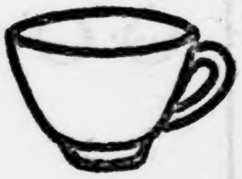
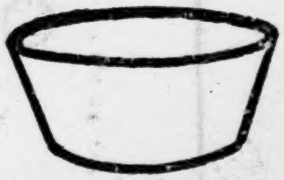
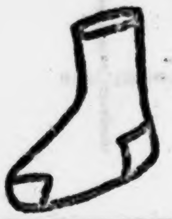
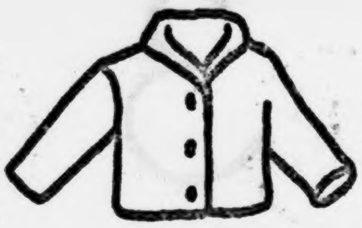
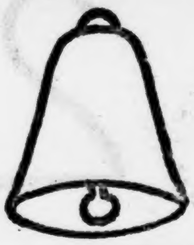
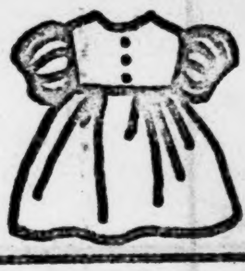
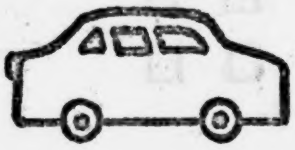
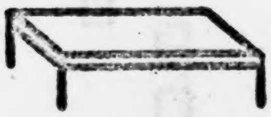
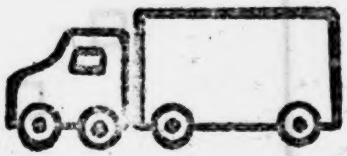
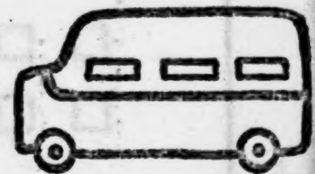
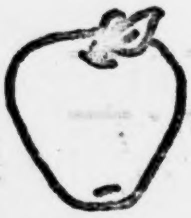
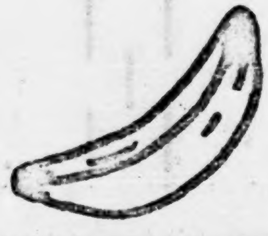
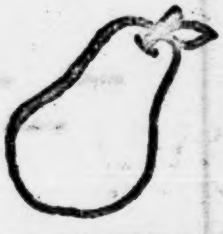
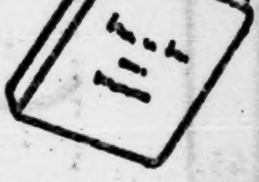
A Mow

B Mow

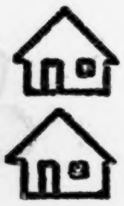
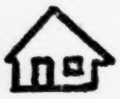
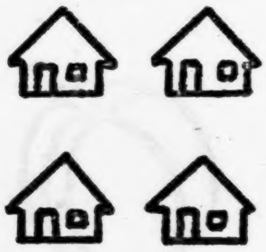
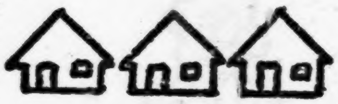
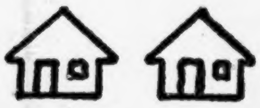
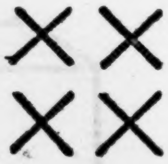
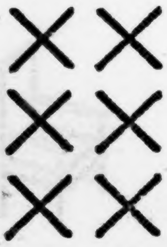
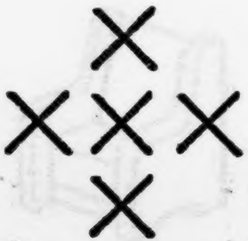
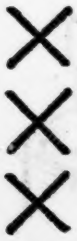
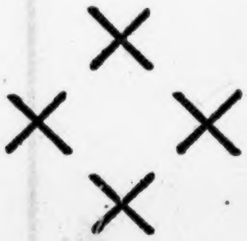
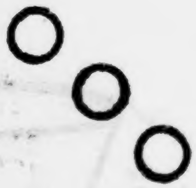
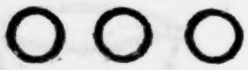
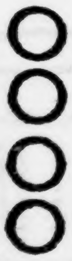
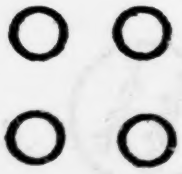
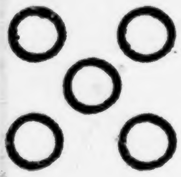
C Wow

D Mow

PART II: DIFFERENCES: Point to the pictures in each item and say, "Three of these belong together. One does not belong. Show me which one does not belong with the others." "Trois de ceux-ci sont du même genre. Un ne l'est pas. Montre-moi lequel qui ne l'est pas."
"Tres de éstos son de mismo género. Uno no lo es. Muéstrame el que no lo es."

Ex.	A 	B 	C 	D 
36.	A 	B 	C 	D 
37.	A 	B 	C 	D 
38.	A 	B 	C 	D 
39.	A 	B 	C 	D 
40.	A 	B 	C 	D 

PART III: NUMERICAL ANALOGIES: Point to the picture on the left and say, "Now, show me the one over here (gesture toward items on right) "that has the same number as this one."
"Maintenant, montre-moi celui ici qui a le même numéro que celui-ci."
"Ahora, muéstrame el aqui que tiene el mismo número que éste."

		A	B	C	D
Ex.					
41.					
42.					
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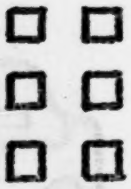
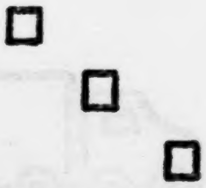
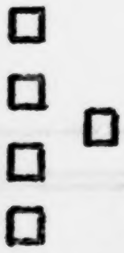
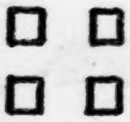
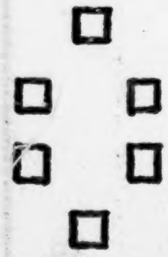
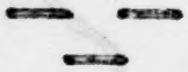
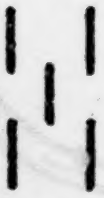
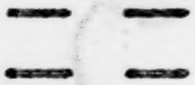
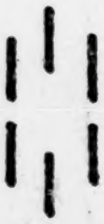
44.					
45.	5				

PART IV: MISSING PARTS: Point to the picture on the left and say, "Now, point to the one over here" (gesture toward items on right) "which belongs to this one."
"Maintenant, indique çelui ici qui appartient à celui-ci."
"Ahora, señala el aquí que pertenece a éste."

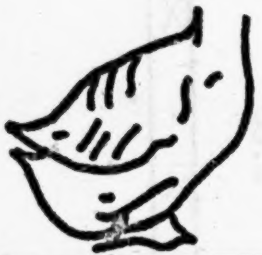
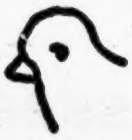
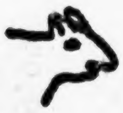
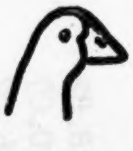
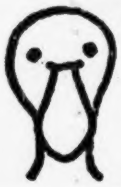
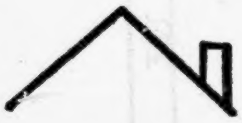
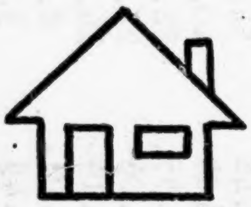
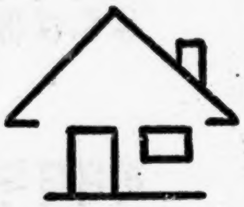
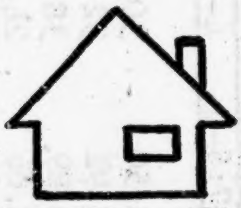
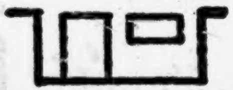
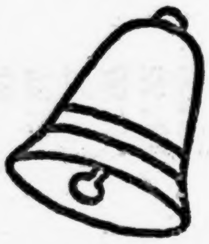
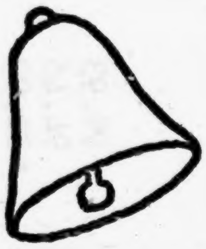
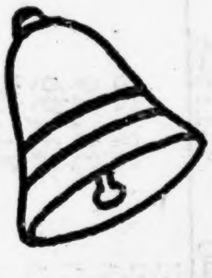
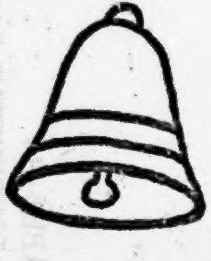
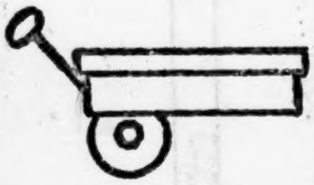
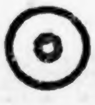
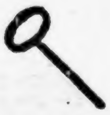
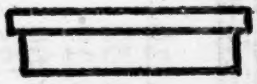
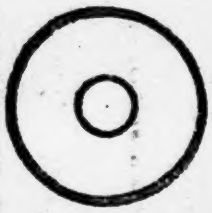
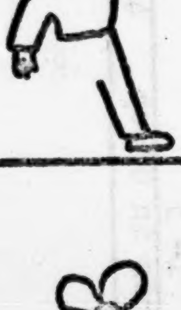
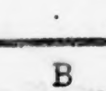
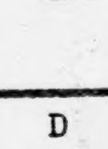
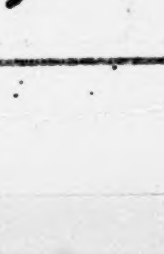
Ex.		A 	B 	C 	D 
46.		A 	B 	C 	D 
47.		A 	B 	C 	D 
48.		A 	B 	C 	D 
49.		A	B 	C	D 
50.		A	B	C 	D

TABLE B

MEAN, MEDIAN, Q_3, Q_1, Q, STANDARD DEVIATION, AND PERCENTILE RANKS FOR CHILDREN IN FORM B NORMING GROUP

	AGES							
Measurement	6-7 up	6-1:6-6	5-7:6-0	5-1:5-6	4-7:5-0	4-1:4-6	4-0 down	TOTAL
Mean	40.51	41.10	38.98	37.20	34.50	30.72	28.82	38.23
Median	41.89	42.52	40.29	38.19	34.91	32.44	30.07	39.50
Q_3	46.51	46.17	45.11	43.99	40.89	38.49	36.07	44.94
Q_1	35.20	36.66	33.97	31.60	28.66	24.85	24.71	32.71
Q	5.65	4.75	5.57	6.19	6.11	6.82	5.68	6.11
Stand. Dev.	7.82	7.20	7.85	8.39	7.39	9.18	8.11	8.36
Percentile Ranks (Class Intervals)								
49-51	99.86	99.79	99.96	99.93	99.96	99.98	99.99+	99.62
46-48	86.64	86.79	91.69	94.45	98.12	97.06	99.99	91.55
43-45	67.94	68.17	77.11	81.99	90.61	94.14	98.00	77.47
40-42	52.68	49.78	60.78	67.99	80.47	88.87	96.00	62.63
37-39	39.22	36.33	45.99	55.88	70.20	79.52	92.00	49.82
34-36	28.73	24.32	34.21	42.34	57.29	66.07	88.00	37.61
31-33	20.06	16.95	23.27	30.95	43.46	54.96	72.00	27.22
28-30	11.63	9.80	15.14	21.53	32.00	40.93	54.00	18.47
25-27	6.16	5.55	8.69	13.72	20.55	32.74	38.00	11.53
22-24	3.88	2.51	5.54	8.97	11.06	23.97	24.00	6.96
19-21	2.51	1.37	2.87	5.11	6.19	16.37	20.00	4.04
16-18	1.37	.53	1.54	2.24	3.03	8.77	14.00	1.98
13-15	.456	.23	.35	.81	1.45	3.51	6.00	.74
10-12		.15	.14	.27	1.05	1.17	2.00	.34
7- 9		.076	.14		.53	.58	2.00	.17
4- 6					.39	.58	2.00	.11
1- 3								
Number in Group	438	1313	1426	1114	759	171	50	5271

WALKER READINESS TEST FOR DISADVANTAGED PRE-SCHOOL CHILDREN
Form ~~A and~~ B

ANSWER SHEET (Make No Marks on the Test Itself. Record all of the child's answers here.)

Child's Name________________ Name of Center________________

Child's Age________________ Location of Center________________
(years) (months) (birthdate) (town) (state) (zip)

Child's Race________________ Population Density________________
(rural or urban)

Child's Sex________________

Date of Test Administration________________ Name of Test Administrator________________

Official Capacity________________

Child's Score__________ Percentile Rank_____

PART I: SIMILARITIES

1. A B C D
2. A B C D
3. A B C D
4. A B C D
5. A B C D
6. A B C D
7. A B C D
8. A B C D
9. A B C D
10. A B C D
11. A B C D
12. A B C D
13. A B C D
14. A B C D
15. A B C D
16. A B C D
17. A B C D
18. A B C D
19. A B C D
20. A B C D
21. A B C D
22. A B C D
23. A B C D
24. A B C D
25. A B C D

PART II: DIFFERENCES

26. A B C D
27. A B C D
28. A B C D
29. A B C D
30. A B C D
31. A B C D
32. A B C D
33. A B C D
34. A B C D
35. A B C D
36. A B C D
37. A B C D
38. A B C D
39. A B C D
40. A B C D

PART III: NUMERICAL ANALOGIES

41. A B C D
42. A B C D
43. A B C D
44. A B C D
45. A B C D

PART IV: MISSING PARTS

46. A B C D
47. A B C D
48. A B C D
49. A B C D
50. A B C D

Please record below any unusual circumstances concerning the child or the situation which might affect the validity or reliability of the test.

WALKER READINESS TEST FOR DISADVANTAGED PRE-SCHOOL CHILDREN
Form ~~A and~~ B

ANSWER SHEET (Make No Marks on the Test Itself. Record all of the child's answers here.)

Child's Name ______________________ Name of Center ______________________

Child's Age ______________________ Location of Center ______________________
(years) (months) (birthdate) (town) (state) (zip)

Child's Race ______________________ Population Density ______________________
(rural or urban)

Child's Sex ______________________

Date of Test Administration ______________ Name of Test Administrator ______________

Official Capacity ______________________

Child's Score ________ Percentile Rank _____

PART I: SIMILARITIES

1. A B ○ D
2. A B C ○
3. A B C ○
4. A B ○ D
5. A B C ○
6. A ○ C D
7. A ○ C D
8. A B ○ D
9. A ○ C D
10 ○ B C D
11. A B C ○
12. A ○ C D
13. A ○ C D
14. A B C ○
15. A ○ C D
16. ○ B C D
17. A B C ○
18. A B ○ D
19. A ○ C D
20. ○ B C D
21. A B C ○
22 ○ B C D
23. A B C ○
24. A ○ C D
25. A ○ C D

PART II: DIFFERENCES

26. A B ○ D
27. A ○ C D
28. A B ○ D
29. A B ○ D
30. A B C ○
31. A B C ○
32. A ○ C D
33. A ○ C D
34. A B ○ D
35. A B ○ D
36. A B C ○
37. ○ B C D
38. A B ○ D
39. A ○ C D
40. A B C ○

PART III: NUMERICAL ANALOGIES

41. A B C ○
42. ○ B C D
43. ○ B C D
44. A B C ○
45. A ○ C D

PART IV: MISSING PARTS

46. A B C ○
47. A ○ C D
48. A ○ C D
49. A B ○ D
50. A B ○ D

Please record below any unusual circumstances concerning the child or the situation which might affect the validity or reliability of the test.